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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF MARKETS
Washington, D. C.

July 21, 1919.

PREVAILING PRICES OF FLUID MILK, CREAM AND CERTAIN MILK PRODUCTS FOR JULY, 1919.

(Copies of the monthly reports on fluid milk prices in the United States will be sent regularly, free of charge to all persons requesting this service. Requests for these reports should be addressed to the Chief of Bureau of Markets, U. S. Department of Agriculture, Washington, D. C.)

TABLE I. PRODUCERS' PRICES FOR MILK DELIVERED AT LOCAL PLANTS OR COUNTRY STATIONS:—

The following table presents a comparison of the prices per hundredweight of both common and special grades of raw milk which have been offered or agreed to for the present month by dealers or concerns whose chief business is the market distribution of fluid milk. These prices are to be paid producers who make deliveries in their own cans either at local milk plants or at country shipping stations. The prices as given are based on quotations applying to the various local and regional markets named in Table III of this report, and apply to milk testing 3.5% butterfat.

Geographic Sections	For Standard or Grade B Milk			For Special or Grade A Milk		
	No. of	Range of	Average of	No. of	Range of	Average of
	Local	Prices	All Prices	Local	Prices	All Prices
	Markets	Reported	Reported (a)	Markets	Reported	Reported (a)
United States.....	533	\$2.00-4.55	\$3.08	105	\$2.68-4.87	\$3.52
New England.....	54	\$3.17-3.53	\$3.19	10	\$3.87-4.22	\$4.03
Middle Atlantic...	101	\$2.74-3.72	\$3.09	47	\$3.22-3.57	\$3.37
E. North Central...	155	\$2.35-3.39	\$2.94	8	\$2.86-3.60	\$3.45
W. North Central...	94	\$2.00-3.52	\$2.94	13	\$2.68-3.54	\$3.01
South Atlantic...	35	\$3.03-4.64	\$3.59	9	\$4.00-4.87	\$4.61
E. South Central...	12	\$2.37-4.18	\$3.15	1	-----	\$4.47
W. South Central...	18	\$3.31-4.65	\$3.81	---	-----	---
Mountain.....	26	\$2.27-3.70	\$2.74	2	\$3.37-3.72	\$3.54
Pacific.....	38	\$2.41-3.79	\$3.10	15	\$3.10-3.96	\$3.38

(a) This table includes prices applicable both to widely separated or distinctly independent local markets and price schedules applicable to the various freight or transportation rate zones of different extensive, or regional markets, such as Boston, New York, and Philadelphia. The "Average of All Prices" is a simple average of all prices reported for the various zones and local city markets. However, the number of series of quotations in the vicinity of most of the larger cities is sufficiently large that this simple average is virtually a weighted average.

TABLE II. DEALERS' SELLING PRICES FOR DIFFERENT GRADES OF MILK AND MILK PRODUCTS:—

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other dairy products delivered at wholesale buyers' places of business or at the homes of retail consumers in thirty-two leading cities. Wholesale prices are reported on the basis of bulk goods sold to and delivered at establishments of large scale consumers or users. Quotations for wholesale milk and light cream have been reduced to a gallon basis. For heavy cream, the wholesale price is quoted per pound of butterfat. See Table III for prices of "standard milk".

Cities	Special		Cert.		Common		Special		Light		Heavy	
	For Grade A		ified		Butter-		Butter-		Cottage		Cream	
	Milk		Milk		milk		milk		Cheese		18-20% Cream	
	Whole-	Re-	Whole-	Re-	Whole-	Re-	Whole-	Re-	Whole-	Re-	Whole-	Re-
	sale	tail	sale	tail	sale	tail	sale	tail	sale	tail	sale	tail
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
	per	per	per	per	per	per	per	per	per	per	per	per
	Gal.	Qt.	Gal.	Qt.	Gal.	Qt.	Gal.	Qt.	Lb.	Lb.	Gal.	2 Pt.
Boston	54	17-18	22-24	23-28	8-10	---	20	---	30	1.22	15-22	75-81
Springfield	---	---	20	24	8	---	---	---	---	1.20	---	---
Hartford	---	18	---	28	8	---	---	7	---	1.60	18	.95
New York	45	18	24	---	11	---	---	8	10	1.60	---	.95
Buffalo	---	15	25	22	7	---	---	7	14	1.45	---	---
Philadelphia	56	15	26	32	8	44	12	7	7	1.44	16	.84
Pittsburgh	---	---	21	30	10	---	---	15-17	15	1.60	16	.95
Cincinnati	---	---	24	28	10	---	---	11	15	1.44	14	.90
Chicago	---	19	25	35	10	---	16-18	---	15-18	1.44	15	.95
Waukegan	---	14	25	20-22	7	---	15	7-10	12	1.40	13	.87
Detroit	---	20	23	24	10	18	20	9	15	1.60	15	.90-.96
Indianapolis	---	15	---	18-25	7-8	---	---	---	---	1.35	13	---
Minneapolis	---	---	20	12	5	---	12	10	12	1.60	14	.92
Lincoln	52	15	20	25	8	---	---	11	15	1.60	15-16	.81
St. Louis	---	18	22	40	11	---	24	11-14	14-15	---	17	---
Des Moines	56	16	---	23-32	10	52	15	12-15	15-20	1.50	14-15	---
Washington, D. C.	---	---	28	36	11	---	20	---	12.5-15	1.60	17	---
Richmond	---	16	---	28	8	---	---	---	15	1.50	15	1.03
Jacksonville	---	22	---	30	8	---	---	30	30	2.40	18	1.20
Baltimore	---	18	---	48	14	---	---	---	---	1.90	---	.96-1.14
Louisville	---	---	---	25	8	---	15	---	12.5	1.20	15	---
Memphis	---	---	25	35	10	---	---	---	---	1.45	13	.725
New Orleans	16	18	25	40	14	40	14	13	15	1.60	14	.90
El Paso	---	---	35	---	14	---	---	---	---	1.75	19	---
Colo. Springs	45	15-17	---	15	7	---	---	15	15	1.60	13	.96
Salt Lake City	---	15	---	20	7-7.5	---	---	12.5	15	1.50	15	.83

	Gal.	Qt.	Qt.	Gal.	Qt.	Gal.	Qt.	Lb.	Lb.	Gal.	Pt.	B. F.
San Francisco	40	14.5	20	15	5	40	--	17-10	15	1.55	16	.03
Seattle	--	--	--	15	5	--	--	12.5	--	1.50	14	--
San Francisco	--	--	20	13	8-10	--	14	12	15	1.50	14	.025

III. DEALERS' AND STORES' COST AND SELLING PRICES OF "STANDARD GRADE MILK".

The following table presents the prevailing prices of "standard grade milk", paid by different classes of buyers in various markets of the United States. The term "standard grade milk" is used to refer to that grade of milk which is most generally sold within the particular city for which prices are quoted. This grade of milk may be either raw or pasteurized, but in case of most of the larger cities it is pasteurized milk. The "dealers' spread" or the difference between cost and selling prices for both wholesale and retail transactions, can be ascertained if the butterfat test of milk as delivered to different classes of trade is known. In order to determine the actual cost price of the grade of milk sold in any city, it is necessary to make allowance of the amount given opposite each city in the third column of the table, for each point of butterfat that the milk actually tests above or below 3.5% (the standard arbitrarily assumed as a basis for the comparison of prices given in the first column of the following table.) To reduce prices per hundredweight to either a gallon or a quart basis, divide by 11.63 and 46.53 respectively. (SEE FOOTNOTES.)

MARKETS FOR WHICH PRICES ARE GIVEN	Dealers' Cost Price: Selling Prices: Retail Store Prices:											
	for Bulk Milk and			To Wholesale			To Family			Cash and		
	Butterfat Allowances:			Trade			Trade			Carry		
	Delivered at City	Per Hundredweight of 3.5% Raw Milk	Required for Basic Price	Price or Allowance per 1/10% Butterfat in a Hundredweight	Per Gallon (in Lots of 5 to 20 Gallons) of Bulk Milk	Per Quart (in Cases of 12) of Bottled Milk	Per Single Quart of Bottled Milk	Per Single Pint of Bottled Milk	Per Quart Measure of Bulk Milk	Per Single Quart of Bottled Milk	Per Single Pint of Bottled Milk	Per Single Quart of Bottled Milk
Alabama:	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Birmingham	4.17	Flat	Price	40-50	16	18-20	--	4	13	--	--	--
Mobile	a	--	--	50-55	12.5	20	--	--	--	--	--	--
Arizona:												
Phoenix	2.27	Str.B.F	6.5	35	11	12.5	--	--	--	--	--	--
Arkansas:												
Little Rock	No report received this month											
California:												
San Francisco	3.57d	3.6	3.0	39	12	14	8	--	14	14	--	--
Los Angeles	3.50	Str.B.F	10.0	50	13-14	14	8	--	14	14	--	--
San Diego	4.02d	Str.B.F	11.5g	46.6	13.6	16	9	--	16	16	--	--
Colorado:												
Colorado Springs	3.66	3.0	3.4	37.5-40	12	12-12.5	7	--	13	15	--	--
Denver	2.80	Str.B.F	8.0	35-40	11-13	13	8	f	12-13	12-13	--	--
Pueblo	3.60	3.5	12.0	37.5-40	12	12	7	--	12-13	--	--	--
Connecticut:												
Bridgeport	3.64	3.0	4.0	44	14	16	9.5	f	--	--	--	--
New Haven	4.10	3.0	4.0	44	13	15	9	f	--	--	--	--
Hartford	4.21	4.0	4.0	48	14	16	9.5	--	15-16	14-16	--	--
Delaware:												
Wilmington	3.36	4.0	4.0	44	13	14	7	--	13	14	--	--
Dist. of Columbia:	3.72											
Washington	4.18	3.5	4.0	42	11.5	14	8	--	12.5-13	--	--	--
Florida:												
Jacksonville	4.25	4.2	5.0	45-50	15	16	9	--	16	13	--	--
Miami	4.53	3.5	5.0	55	18	20	10	--	--	--	--	--
Orlando	a	--	--	70	20	22	--	--	22	22	--	--
Georgia:												
Atlanta	--	--	--	55	--	--	--	--	--	--	--	--
Savannah	--	--	--	70-80	20	25	13	f	25	25	--	--
Augusta	3.15	Str.B.F	9.0	--	13	13	10	--	15	15	--	--
Iowa:												
Wallace	4.05	Flat	Price	40	--	15	10	--	--	--	--	--
Illinois:												
Chicago	3.40	3.5	4.0	40-44	13-14	14	8	f	14	14	--	--
Florida	3.00	3.5	5.8	30	--	10-12.5	--	--	--	--	--	--
Rockford	3.50	3.5	3.0	36	11	12	7	10	12	12	--	--
Indiana:												
Indianapolis	2.60	Str.B.F	8.0	33-40	11	13	7	--	13	13	--	--
Fort Wayne	3.20	Flat	Price	35	10.5-11	13	7	--	13	13-15	--	--
Ellettsburg	3.00	Flat	Price	36	10	12	6	--	12	12	--	--
Terre Haute	2.80	Str.B.F	8.0	42	13	14	8	--	14	--	--	--
Iowa:												
Des Moines	3.50	3.5	5.0	42	12	14	8	--	13	14	--	--
Sioux Falls	2.80	3.5	3.0-4.0	40	10-11	12	7	--	12	12	--	--
Sioux City	3.60	4.0	6.0	42.5	13	14	8	--	14	14	--	--

Page 3 -- July Milk Prices.

To facilitate the reading of prices listed below and on the reverse side of this sheet adjust the columns to the headings of table 3 on Page 2.

Kansas:	\$	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Leavenworth	3.00	Flat	Price	40	10	12	6	12	12	12
Topeka	3.60	Flat	Price	45	13	15	8	--	--	--
Kentucky:										
Louisville	2.66	Flat	Price-g	35	13	15	8	--	--	--
Lexington	4.07	Flat	Price	45	12.5	--	--	--	--	--
Louisiana:										
New Orleans	4.42	3.5	2.3	45-50	14-16	16	8.5	f	--	--
Alexandria	4.07	Flat	Price	50	--	20	10	--	--	--
Maine:										
Auburn	Price not Determined			40	11.5	13	7	--	--	--
Maryland:										
Baltimore	3.49	Flat	Price	52	14	14	8	--	--	--
Cumberland	3.49	Flat	Price	40	13	15	8	--	15	--
Massachusetts:										
Boston	3.95 c	3.5	4.0	47	13	15	9	f	14-15	15-16
Springfield	3.95 b	Flat	Price	48	13	15	8	f	11	14-15
Worcester	3.95	Flat	Price	--	12	14-15	--	--	--	--
Michigan:										
Detroit	3.40	3.5	4.0	46	14	15	9	--	15	15
Grand Rapids	3.12	Flat	Price	38	11	13	7	f	13	13
Kalamazoo	3.49	Flat	Price	40	11	13	7	--	13	13
Minnesota:										
Minneapolis	3.75 de	Flat	Price	38	10.5	12	7	--	11	12
St. Paul	3.75 de	Flat	Price	40	11	12	7	--	12	12
Duluth	3.00	3.5	5.0	38	12-13	12.5-14	8	--	13-14	13-14
Winona	3.36	Flat	Price	40	10	11	7	--	--	--
Missouri:	3.13	4.0	3.48							
Kansas City	3.31 h	StrB.F.	7.0-9.0	40-45	13	15	8	--	14-15	14-15
St. Louis	3.60	Flat	Price	--	13	14	9	--	14	14
St. Joseph	2.98	StrB.F.	8.5	40	11	--	--	--	15	15
Montana:										
Butte	2.80	StrB.F.	8.0	45	12-12.5	15	8	--	15	15
Nebraska:										
Lincoln	2.63	StrB.F.	7.5	38	11	13	8	--	13	13
Omaha	2.75	3.5	5.5	40	12.5	15	9	--	14-15	14-15
New Hampshire:										
Concord	--	--	--	--	12	14	--	--	--	--
New Jersey:										
Newark	3.65	3.0	4.0	42-44	12	15	--	--	13	13
Trenton	3.48	4.0	4.0	42	11-12	13	7	--	--	13
Atlantic City	--	--	--	--	14	16	9	--	--	--
Camden	3.72	Flat	Price	--	--	13	7	--	--	--
New Mexico:										
Albuquerque	--	--	--	50	--	16	--	--	--	--
New York:										
New York	3.65	3.0	4.0	42	--	16	9	10.5	16	16
Buffalo	3.51	3.0	4.0	36	12.5	14	8	--	--	--
Albany	3.50	Flat	Price	f	14	15	8	--	--	--
Rochester	3.49	3.6	4.0	42	12	13.5	7.5	--	13.5	13.5
Syracuse	3.28	Flat	Price	40	12	14	7.5	--	--	--
North Carolina:										
Ashville	3.80	Flat	Price	45	12	15	8	--	15	16
North Dakota:										
Jamestown	2.75	Flat	Price	35	--	11	6	--	--	--
Oklahoma:										
Oklahoma City		No report received this month								
Ohio:	3.41	3.5	5.0							
Cleveland	3.66	3.5	5.8	46	13.5	15	9	--	15	15
Cincinnati	3.25 b	3.5-4.0	3.5-4.5	44-48	13	14	8	--	14	14
Toledo	3.15	Flat	Price	40	11.5	13	7	--	--	--
Dayton	2.75	4.0	5.0	38-40	11	13	7	--	12	13
Columbus	3.55 h	4.0	5.0	40	12	14	8	--	14	14
Oregon:										
Eugene		No report received this month					9.5			
Portland	3.35 d	3.8	5.0	40-45	12-13	14.5	10.0	--	16	--
Pennsylvania:	2.92									
Pittsburgh	3.48	3.5	5.0	42-47	13.5	14	8	--	14-15	14-15
Philadelphia	3.48	4.0	4.0	42-44	12	13	7	11	13	13
Harrisburg		No report received this month								
Scranton	3.55	4.0	4.0	40	12	13	7	--	13	13
Rhode Island:										
Providence	3.95	3.5	4.0	45	12.5	15	8.5	--	14-15	--
Newport	3.93	Flat	Price	48	12	14	8	f	12	12
South Dakota:										
Sioux Falls	3.75	Flat	Price	40	13	13	7	--	--	--

Tennessee:	:\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Memphis	: 3.48	: Flat	: Price	: 44	: 18	: 18	: 10	: --	: 18	: 18	
Nashville	: 2.85	: StrB.F.	: 8.15	: 45	: 15	: 17	: 9	: --	: 17	: 17	
Chattanooga	: 3.20	: 4.0	: 5.8	: 50	: 14	: 18	: 9	: --	: 18	: 18	
Texas:	: 3.25	:	:	:	:	:	:	:	:	:	
Galveston	: 4.07	: Flat	: Price	: 50-60	: 12.5-15	: 20	: 10	: --	: --	: --	
El Paso	: 4.40	: 4.0	: 4.0	: 50-55	: 12.5-13	: 19	: 10	: --	: 17	: 17	
Utah:	: 3.11	:	:	:	:	:	:	:	:	:	
Salt Lake City	: 3.21	: 3.8	: 4.0	: 35	: 11	: 12-12.5	: 7	: --	: 13	: --	
Virginia:	:	:	:	:	:	:	:	:	:	:	
Richmond	: 4.64	: Flat	: Price	: f	: 15	: 15	: 8	: --	: 16	: 16	
Roanoke	: 4.06	: Flat	: Price	: 48	: 12	: 15	: 8	: --	: 15	: --	
Washington:	: 2.90	:	:	:	:	:	:	:	:	:	
Seattle	: 3.02	: 3.5	: 5.0	: 35	: 10	: 12	: 7	: --	: --	: --	
West Virginia:	:	:	:	:	:	:	:	:	:	:	
Wheeling	: 3.50	: Flat	: Price	: 45	: 13	: 15	: 8	: --	: 15	: 15	
Clarksburg	: 3.48	: Flat	: Price	: 35	: 12.5	: 14	: 7	: --	: --	: --	
Wisconsin:	: 3.40	:	:	:	:	:	:	:	:	:	
Milwaukee	: 3.48	: cgs	: Flat	: Price	: 38	: 11	: 12	: 7	: --	: 12	: 12
Beloit	:	No report received this month					:	:	:	:	
Green Bay	: 2.76	: 3.6	: 4.0	: 36-40	: 10.5	: 12	: 7	: 11	: 12	: 12	
Vermont:	: 2.96	:	:	:	:	:	:	:	:	:	
Burlington	: 2.90	: Flat	: Price	: 40	: 10	: 13	: --	: 10-11	: 13	: 13	

Explanatory Notes Regarding Prices Quoted in Table III:-

***In markets where the price of whole milk is determined entirely on the basis of its butterfat content the price per pound of butter fat as given in the third column of this table includes an allowance for the nonfat content of natural milk. In such cases the price to be paid per hundredweight of milk of any test, (within the minimum limit prescribed by law and the maximum limit, if any, agreed to between producers and dealers), is determined simply by multiplying the agreed price per pound of butter fat given in the third column of this table, by a number corresponding to the actual weight of butterfat contained in the milk, as determined by the Babcock test. The majority of fluid milk dealers of this country, however, do not buy wholemilk on such a "straight butterfat basis". It is a more general practice to pay on the basis of a certain price per hundredweight of milk containing a definitely stipulated percentage of butterfat, such as are given for various markets in the second column of this table. If the average test of the milk delivered by any producer is either higher or lower than the stipulated percentage, the allowance "per point of butterfat" agreed upon between producers and dealers is added or subtracted, as the case may be, for each 1/10% variation from the test required for the basic wholemilk price. In the third column of this table there is given either the price per pound of butterfat in case milk prices are determined on a "straight butterfat basis" or the allowance per 1/10% variation from the stipulated percentage of butterfat required for the basic whole milk price. In the second column of the table there is given the stipulated butterfat test required for the basic price for wholemilk except for markets in which a flat price is paid for all natural unadulterated milk regardless of butterfat test or for markets in which milk prices are dependent upon a "straight butterfat basis". (Such a condition being indicated by the abbreviation Str. B.F.)

a Practically all or the greater portion of the market milk supply of this city is reported to be furnished by the local producers who distribute their own supply and therefore there is no well established basic wholesale price quotation in this market.

b In this market it is agreed between producers and dealers that a lower price than the one given in the first column of this table is to apply to that portion of the total quantity of milk delivered by any producer which is in excess of the average quantity delivered during certain specified "low production" months. In general the so-called "surplus price" conforms somewhat to value of milk when converted into manufactured dairy products such as cheese or butter, but in some cases the price applying to quantities delivered in excess of the average of the low production months is agreed to in advance, and is not dependent on butter "cheesemarket quotations" for the month. In such cases the "surplus price" agreed to in advance commonly varies from 2/3 to 3/4 of the price applying to any producer's normal supply as determined by his production during the accepted basic low production months. The months commonly selected to serve as the basis for computations are November, December, January and February.

c In this market the given price applies by agreement only to such a percentage of the total supply delivered by all the regular patrons of the dealers as will be sold by the dealers in the form of wholemilk. The "surplus price" will apply to all milk converted into cream, skimmilk and the various other products actually manufactured by the dealers from their surplus supply of milk. The price to be paid for this surplus milk is to be determined at the end of the month on the basis of the average market value to the dealers of the supply not sold as fluid milk.

d In this market a producers' marketing association, or agency, provides for the disposition of all surplus milk at whatever prices it is able to obtain either by selling it to concerns which buy the milk for purposes of converting it into manufactured dairy products or by manufacturing the surplus in factories operated by the association or agency itself.

e In this market the price of milk is to be based on some accepted wholesale market quotations for American cheese. The price given in the first column of this table was obtained by multiplying the average of the quotations for cheese (stylewines) for the first two weeks of the current month by 10 (an assumed average yield of cheese per cwt. of milk) and adding whatever differential has been agreed upon between producers and dealers. In the St. Paul and Minneapolis market the differential agreed upon is \$.70 per cwt. of milk.

f Bulk milk is not permitted to be sold to this trade.

g In this market a special allowance is made for butterfat in excess of 4%. This special allowance is based on the annual month's wholesale butter prices. In the San Diego market the price applying to this surplus butterfat is 14 cents over the San Francisco butter quotations.

h In this market a special price arrangement applies to milk delivered at dealers country stations. In the case of the Kansas City market the milk delivered at country stations is to be paid for on a straight butterfat basis at a definitely stipulated price per pound butterfat as indicated in the third column of this table. In the Columbus market country station prices are to be based upon the current month's wholesale butter prices in Chicago (a premium of 6 cents per lb. B. F. being allowed) with a definite allowance of 70 cents per cwt. of the non-fat content of whole milk.

STANDARDS APPLYING TO DIFFERENT MARKET GRADES OF MILK

The legal requirements relating to the quality of "standard grade milk" and the conditions under which it is produced vary with different markets. In some cities health officials require dairies to maintain certain standards of equipment and methods of sanitary production, whereas in other cities the milk inspection department is concerned mainly with making butterfat tests or preventing adulterations. The minimum dairy score permitted dairies producing and selling this grade of milk varies from 55 to 75 points. The maximum temperatures at which this grade of milk may be held from time of milking until delivery, range from 50 to 70 degrees Fahrenheit. The legal limit of bacterial counts allowed ranges from 50,000 to 5,000,000 per cubic centimeter. However, in case of most of the cities included in this report the legal maximum limit does not exceed 5,500,000, nor is it lower than 100,000 in more than two or three cases. The minimum butterfat content legally permitted varies from 3% to 3.5%. Reports received from health officers of the majority of cities in this list show that the actual butterfat content of this grade of milk ranges from 3.5% to 4%. The most prevalent butterfat test reported by health officers are 3.5%, 3.6% and 3.7%.

In this report the term "Special or Grade A Milk" is used to designate all those grades or special brands of milk that are produced under exceptionally sanitary conditions or that have otherwise acquired a specially good reputation for quality. In some instances, these grades or special brands, of milk have a richer butterfat content than Grade B or "Standard Grade Milk". Generally, however, "Special Milk" sells for higher prices mainly because of the supposedly superior sanitary conditions surrounding its production. In those cities where milk is officially graded, the highest bacterial count permitted for Grade A Milk is usually 50,000 or 100,000 per cubic centimeter. Generally a higher dairy score is also required for dairies permitted to sell milk under an official "Grade A" label. The use of the label "Grade A" is usually restricted to those dairies whose herds are certified by a licensed veterinarian to be free from tuberculosis.

"Certified Milk" is milk produced under the supervision of special medical milk commissions. These commissions grant certain dairies the privilege of selling milk under the label of "Certified Milk" provided the milk is produced in compliance with the most stringent regulations promulgated by the individual milk commissions. Certified Milk is produced in dairies which are free from tuberculosis and in which the most approved sanitary equipment and production methods are employed. The maximum bacterial count permitted for Certified Milk is regulated by the different commissions. In most cases it is not permitted to exceed 10,000 bacteria per cubic centimeter. Certified Milk enjoys a desirable prestige for wholesomeness and general excellence of quality, but the cost of its production requires it to be sold at prices considerably higher than those applying "Standard Grade Milk".

GEORGE LIVINGSTON,

Acting Chief of Bureau.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF MARKETS
Washington, D. C.

August 21, 1919.

PREVAILING PRICES OF FLUID MILK, CREAM AND CERTAIN MILK PRODUCTS FOR AUGUST, 1919.

(Copies of the monthly reports on fluid milk prices in the United States will be sent regularly, free of charge to all persons requesting this service. Requests for these reports should be addressed to the Chief of Bureau of Markets, U. S. Department of Agriculture, Washington, D. C.)

TABLE I. PRODUCERS' PRICES FOR MILK DELIVERED AT LOCAL PLANTS OR COUNTRY STATIONS:-

The following table presents a comparison of the prices per hundredweight of both common and special grades of raw milk which have been offered or agreed to for the present month by dealers or concerns whose chief business is the market distribution of fluid milk. These prices are to be paid producers who make deliveries in their own cans either at local milk plants or at country shipping stations. The prices as given are based on quotations applying to the various local and regional markets named in Table III of this report, and apply to milk testing 3.5% butterfat.

Geographic Sections	For Standard or Grade B Milk			For Special or Grade A Milk		
	No. of	Range of	Average of	No. of	Range of	Average of
	Local Markets	Prices Reported	All Prices Reported (a)	Local Markets	Prices Reported	All Prices Reported (a)
UNITED STATES	538	\$2.46-\$4.88	\$3.40	129	\$2.90-\$5.77	\$3.85
New England	50	\$3.31-\$4.42	\$3.76	11	\$3.66-\$5.63	\$4.95
Middle Atlantic	101	\$3.09-\$4.19	\$3.37	74	\$3.35-\$4.07	\$3.68
E. North Central	159	\$2.46-\$4.12	\$3.41	8	\$2.90-\$5.77	\$4.39
W. North Central	94	\$2.50-\$3.50	\$3.10	12	\$3.06-\$3.86	\$3.68
South Atlantic	38	\$3.29-\$4.88	\$3.79	6	\$4.45-\$4.95	\$4.71
E. South Central	12	\$2.52-\$4.18	\$3.23	1	\$	\$4.24
W. South Central	19	\$3.15-\$4.65	\$4.06	0	\$	---
Mountain	27	\$2.65-\$3.66	\$2.93	2	\$3.49-\$3.72	\$3.60
Pacific	38	\$3.12-\$3.77	\$3.25	15	\$3.10-\$3.95	\$3.43

(a) This table includes prices applicable both to widely separated or distinctly independent local markets and price schedules applicable to the various freight or transportation rate zones of different extensive, or regional markets, such as Boston, New York, and Philadelphia. The "Average of All Prices" is a simple average of all prices reported for the various zones and local city markets. However, the number of series of quotations in the vicinity of most of the larger cities is sufficiently large that this simple average is virtually a weighted average.

TABLE II. DEALERS' SELLING PRICES FOR DIFFERENT GRADES OF MILK AND MILK PRODUCTS:-

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other dairy products delivered at wholesale buyers' places of business or at the homes of retail consumers in twenty-six leading cities. Wholesale prices are reported on the basis of bulk goods sold to and delivered at establishments of large scale consumers or users. Quotations for wholesale milk and light cream have been reduced to a gallon basis. For heavy cream, the wholesale price is quoted per pound of butterfat. See Table III for prices of "standard milk."

Cities	Special or Grade A Milk		Certified Milk		Common Butter-Milk		Special Butter-milk		Cottage Cheese		Light Cream 18-20%		Heavy Cream
	Whole-sale	Re-tail	Re-tail	Whole-sale	Re-tail	Whole-sale	Re-tail	Whole-sale	Re-tail	Whole-sale	Re-tail	Whole-sale	
	Cts. per Gal.	Cts. per Qt.	Cts. per Qt.	Cts. per Gal.	Cts. per Qt.	Cts. per Gal.	Cts. per Qt.	Cts. per Lb.	Cts. per Lb.	\$ per Gal.	Cts. per apt.	\$ per Lb.	
Boston	54	18	24	23	10-11	--	10	--	30	1.47	15	.84	
Springfield	--	--	20	--	8	--	--	--	--	--	--	--	
New York	46	18	24	40	11	--	--	8	10	1.76	--	1.00	
Buffalo	--	16	25	24	10	--	10	--	15	1.55	20	--	
Philadelphia	--	16	26-28	34-28	8-10	48	13	7	10	1.44	16-18	.86	
Pittsburgh	--	--	--	30	10	--	--	11	--	1.80	18	.95	
Cleveland	--	20	30	25	12	--	15	11	15	1.80	22	1.08	
Chicago	--	--	25	25-40	10	--	20	18	18	1.65	15-16	1.03	
Milwaukee	--	15-18	25	24-26	8	--	--	8-10	12-14	1.98	--	.95	
Detroit	--	20	23	28	11	--	--	9	16	1.80	16	1.07	
St. Paul	--	--	20	15-20	6	--	12	10	12	1.60	14	.90	
St. Louis	--	18	22	40	11	--	24	14	15	1.50	17-22	--	
Des Moines	--	17	--	15-30	8-10	--	--	15	17-20	2.00	15	1.39	
Washington, D. C.	--	--	28	48	13-15	--	15	12	15	1.75	15	--	
Richmond	--	16	--	28	8	--	15	--	--	1.50	15	--	
Jacksonville	--	22	--	20	--	30	10	30	30	2.40	20	.90	
Baltimore	--	19	--	50	14	--	--	--	--	2.00	--	1.13	
Mobile	--	--	--	24	8	--	--	--	12.5	1.60	15	--	
Meridian	--	--	25	36	10	--	10	--	20	1.45	18	.89	
Omaha	50	18	25	--	--	40	14	--	--	1.55	14	.85	
San Antonio	--	--	--	30	10	--	--	12	20	1.80	15	1.11	
Springfield	45	15	--	15	7	--	--	15	15	1.60	13	--	
Lake City	--	15	--	20	7	--	--	12.5	15	1.50	15	.90	
Portland	--	--	20	15	5	45	--	7	15	1.65	16	--	
Seattle	--	--	--	20	5	5	--	--	--	1.70	15	--	
San Francisco	--	--	20	20	10	--	14	12	15	1.70	14	.96	

TABLE III DEALERS' AND STORES' COST AND SELLING PRICES OF "STANDARD GRADE MILK"

The following table presents the prevailing prices of "standard grade milk" paid by different classes of buyers in various markets of the United States. The term "standard grade milk" is used to refer to that grade of milk which is most generally sold within the particular city for which prices are quoted. This grade of milk may be either raw or pasteurized, but in case of most of the larger cities it is pasteurized milk.

Unless otherwise qualified the prices given in the first column in the following table show the cost of milk delivered to dealers at either city railroad terminals or at the dealers distributing plant where deliveries are made direct by producers. When the price paid by dealers to producers applies to deliveries at country receiving stations and does not include payment for transportation to the city, the average transportation cost of some dealers has been added to the country station price in order that the cost to the dealer (not including country station expenses) may be shown.

The "dealer's spread" or the difference between cost and selling prices for both wholesale and retail transactions, can be ascertained if the butterfat test of milk as delivered to different classes of trade is known. In order to determine the actual cost price of the grade of milk sold in any city, it is necessary to make allowance of the amount given opposite each city in the third column of the table, for each point of butterfat that the milk actually tests above or below 3.5% (the standard arbitrarily assumed as a basis for the comparison of prices given in the first column of the following table.) To reduce prices per hundred weight to either gallon or quart basis divide by 11.63 and 46.53 respectively.

See footnotes for exceptions to given prices or special conditions relating to price agreements in different markets.

MARKETS FOR WHICH PRICES ARE GIVEN	Dealers' Cost Price for Bulk Milk and Butterfat Allowances			Dealers' Selling Prices To Wholesale Trade			Retail Store Prices Cash and Credit & Carry Delivery		
	Delivered at City of 3.5% Raw Milk Per Hundredweight	Basic Prices Required for Butterfat Test ***	Price or Allowance per 1/10% Butterfat in a Hundredweight ***	Per Gallon (in Lots of 5 to 20 Gallons) of Bulk Milk	Per Quart (in Cases of 12) of Bottled Milk	Per Single Quart of Bottled Milk	Per Single Pint of Bottled Milk	Per Quart Measure of Bulk Milk	Per Single Quart of Bottled Milk
Alabama:	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Birmingham	4.18	--	--	40-64	15-16	18-20	10	--	18-20
Mobile	a	--	--	50-65	--	20	10	--	--
Arizona:									
Phoenix	2.80	StrB.F.	7.0	35-40	12.5	14-15	8	--	14
Arkansas:									
Little Rock	No report received this month.								
California:									
San Francisco	3.57d	3.6	3.0	39	12	14	8-9	--	14
Los Angeles	3.50	StrB.F.	10.0	50	13	14	8	--	14
San Diego	4.02d	StrB.F.	11.5g	47	13.6	16	9	--	--
Colorado:									
Colofado Springs	3.66	3.0	3.5	37.5	11-12	12.5	--	--	13
Denver	2.98	StrB.F.	8.5	35	12	13	--	i	--
Pueblo	3.60	3.5	12.0	40	12	13	7	--	--
Connecticut:	4.45	4.0	4.0	--	--	--	--	--	--
Hartford	3.89f	3.0	4.0	48	14	16	9	--	15-16
Bridgeport	3.92	3.0	4.0	48	14	16	9.5	i	16
New Haven	4.65	3.0	4.0	--	14	16	8.5	i	16
Delaware:									
Wilmington	3.82	4.0	4.0	48	14	--	--	--	13-16
District of Columbia:									
Washington	3.95	3.5	4.6	36-48	13	15-16	8	--	14
Florida:									
Jacksonville	4.88	4.2	5.0	50	15	18	10	--	16
Tampa	--	--	--	55	18	20	--	--	--
Miami	a	--	--	70	17.5	--	--	--	--
Georgia: Correction	See footnote concerning past month's prices for Augusta.								
Atlanta	4.65	Flat	Price	50-60	15	20	10	--	--
Savannah	a	--	--	60-70	20	20-25	10-15	i	22-25
Augusta	3.66	StrB.F.	10.5	50	13	18	10	--	--
Idaho:									
Wallace	3.96	Flat	Price	40	15	15	10	--	20
Illinois:	4.05								
Chicago	3.87f	3.5	4.0	48-50	14-15	15	9	i	15
Peoria	3.52	3.5	5.8	35	55	13-14	8	--	--
Rockford	3.52	3.5	4.0	40	13	14	8	12	14
Indiana:	3.22	4.0	7.5	--	--	--	--	--	--
Indianapolis	3.15f	StrB.F.	8.0h	38	11	13	7	--	13
Fort Wayne	3.15	Flat	Price	44	12	13-14	7-8	--	13-15
South Bend	3.60	Flat	Price	40	11	13	7	--	13
Evansville	2.81b	StrB.F.	8.02g	42	13	14	8	--	14

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Iowa:				Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Des Moines	3.50	3.5	5.0	45	13	15	8	--	14	15
Dubuque	3.16	3.6	3.0-4.0	40	11	12	7	--	12	12
Sioux City	3.70	4.0	6.0	45	14	15	9	--	--	--
Kansas:										
Kansas City	3.22	4.0	2.9	--	12	14	--	--	15	14
Leavenworth	3.00	Flat	Price	40	10	12	6	--	12	12
Topoka	3.60	Flat	Price	45	13	15	8	--	15	--
Kentucky:										
Louisville	2.72	4.0	3.5g	35	13	15	8	--	--	--
Lexington	4.07	Flat	Price	50	15	18	10	--	--	--
Louisiana:										
New Orleans	4.42	3.5	2.3	45	14	16	8.5	i	16	16
Alexandria	4.65	Flat	Price	50	--	20	10	--	--	--
Maine:										
Auburn	Price not determined			46	12.5	14	8	--	14	14
Portland	4.19	3.5	4.0	46	12	14	7	--	--	--
Maryland:										
Baltimore	3.67	4.0	5.8	55-56	15	15	8.5	--	16	16
Cumberland	3.49	Flat	Price	50	13	15	8	--	15	--
Massachusetts:										
Boston	4.185c	3.5	4.0	50	13.5	15.5	8-9	i	15	16
Springfield	4.19d	Flat	Price	--	--	16	--	i	12	15
Fall River	3.95-	Flat	Price	60	15	15	--	--	13	13
Michigan:	4.23									
Detroit	4.05	3.5	4.0	52	15	16	10	--	--	16
Grand Rapids	3.48	Flat	Price	40-42	12	14	8	i	14	14
Kalamazoo	4.00	Flat	Price	48	13	15	8	--	--	--
Minnesota:										
Minneapolis	3.40de	3.5	5.0	42-44	11.5-12	13	7	--	14	14
St. Paul	3.40de	3.5	5.0	42-44	11.5	13	7	--	12-13	12-13
Duluth	3.50	3.5	5.0	42	13	15	8.5	--	--	--
Winona	3.35	Flat	Price	40	10	11	7	--	--	--
Missouri:	(3.60	4.0	3.0h							
Kansas City	(3.50f	StrB.F	10.0	40	13	15	8	--	15	15
St. Joseph	2.98	StrB.F	8.5	45	12	15	8	--	15	15
St. Louis	(3.45f	3.5	3.0	--	14	15	9	--	15	15
Montana:										
Butte	3.49	Flat	Price	40-45	12.5	15	8	--	15	15
Nebraska:										
Lincoln	2.93	StrB.F	8.37	44	12.5	14	9	--	14	14
Omaha	3.25	3.5	5.0	40	12.5	14.28	8	--	15	15
New Hampshire:										
Concord	4.185c	3.5	4.0	32-34	12	14	8	--	--	--
New Jersey:										
Newark	3.78	3.0	4.0	44-48	13	16	--	--	14	--
Trenton	3.94	4.0	4.0	48	13	14	8	--	--	16
Atlantic City	--	--	--	--	14	16	9	--	--	--
Camden	4.19	Flat	Price	--	--	14	8	--	--	--
New Mexico:										
Albuquerque	--	--	--	50	--	16.5	--	--	--	--
New York:	(3.59									
Buffalo	3.43f	3.0	4.0	38-44	13.5-14	15	8.5	--	15-16	15
New York	3.77	3.0	4.0	44	15	16	9	11-12	16	--
Albany	3.65	Flat	Price	38-40	15	15	8	--	--	16-18
Rochester	3.61	3.6	4.0	44	12.5	14	7.5	--	14	14
Binghampton	3.84	Flat	Price	46	12	13	7	--	13	14
Syracuse	3.41	Flat	Price	44	13	15	8	--	--	--
North Dakota:										
Fargo	3.48	Flat	Price	40	12	15	8	--	--	--
Jamestown	2.75	Flat	Price	35	11	10	5	--	--	--
Oklahoma:										
Oklahoma City	3.10	4.0	8.0	40	12	15	8	--	14	15
Tulsa	3.35	StrB.F	9.6	50	--	--	--	--	18	--
Ohio:	(3.84									
Cleveland	3.59f	3.5	5.8	46	13.5	15	9	--	15	15
Cincinnati	3.56b	3.5-4	4.5-3.5	48	13	14	8	--	14	14
Toledo	3.65	Flat	Price	42-44	13.5	15	8	--	--	--
Dayton	3.23	4.0	5.0	40	12	14	8	--	14	14
Columbus	3.55h	4.0	5.0h	38	12	14	8	--	14	14
Oregon:										
Eugene	3.15	Flat	Price	35	12	14	8	--	--	--
Portland	3.35d	3.8	5.0	45	12-13	14-15.5	8-9.5	--	--	--
Pennsylvania:	(4.07									
Pittsburgh	3.74f	3.5	5.0	48-54	14.5	14.5-15	9	--	--	--
Philadelphia	3.94	4.0	4.0	44-48	13	14	8	--	14	14
Harrisburg	3.44	4.0	4.0	48	12	13	7	--	13	13-14
Scranton	3.67	3.0	4.0	44	13	14	8	--	14	14

Page 4--August Milk Prices.

Fold this sheet on the dotted line below in order to adjust the columns of this page to proper headings of Table III on page 2. (FOLD HERE)

Rhode Island:	\$4.65	3.5	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Providence	4.18c	3.5	4.0	50	13.5	15-15.5	3	--	15	15
Newport	4.47c	Flat	Price	52	13	15	8	i	15	15
South Carolina:										
Charleston	a	--	--	72	18	22	--	--	22	--
South Dakota:										
Sioux Falls	4.00	Flat	Price	45	13	13	7	--	--	--
Aberdeen	--	--	--	32	8	12-14	7	--	10-12	14
Tennessee:	3.95-									
Memphis	4.08	Flat	Price	44	16-18	18	10	--	15	18-20
Nashville	2.85	StrB.F	8.15	45	15	17	9	--	17	17
Chattanooga	3.20	4.0	5.8	50	14	18	9	--	--	--
Texas:	4.07-									
Galveston	4.65	Flat	Price	50-60	15	20	10	--	--	--
El Paso	4.40	4.0	4.0	50-55	12.5-13	19	10	--	17	17
Fort Worth	3.15	StrB.F	9.0	45	15	18	10	--	--	--
San Antonio	3.53	4.0	--	40	14	15	8	--	15	15
Utah:	3.24-									
Salt Lake City	3.37	3.8	4.0	33-35	11	12-12.5	7	--	13	--
Vermont:										
Burlington	3.50	Flat	Price	--	12	14	--	12	13	13
Virginia:										
Richmond	4.71	Flat	Price	52	15	15	8	--	--	--
Roanoke	4.07	Flat	Price	48	12-13	15	8	--	--	--
Washington:										
Seattle	3.46	3.5	5.0	43.3	12	13	8	--	--	--
Spokane	3.50	3.6	5.0	--	--	--	--	--	--	--
West Virginia:										
Wheeling	3.75	Flat	Price	45	13	15	8	--	15	15
Clarksburg	--	--	--	35	12.5	14	--	--	15	15
Wisconsin:	4.00-									
Milwaukee	4.12c	Flat	Price	42	12	13	7	--	13	13
Beloit	3.52	3.5	4.0	48	12	13	--	--	--	--
Green-Bay	3.11	3.6	4.0	35-40	10.5	12	7	--	12	12

Explanatory Notes Regarding Prices Quoted In Table III:-

**In markets where the price of whole milk is determined entirely on the basis of its butterfat content the price per pound of butterfat as given in the third column of this table includes an allowance for the nonfat content of natural milk. In such cases the price to be paid per hundredweight of milk of any test, (within the minimum limit prescribed by law and the maximum limit, if any, agreed to between dealers and producers), is determined simply by multiplying the agreed price per pound of butterfat given in the third column of this table, by a number corresponding to the actual weight of butterfat contained in the milk, as determined by the Babcock test. The majority of fluid milk dealers of this country, however, do not buy whole milk on such a "straight butterfat basis". It is a more general practice to pay on the basis of a certain price per hundredweight of milk containing a definitely stipulated percentage of butterfat, such as are given for various markets in the second column of this table. If the average test of the milk delivered by any producer is either higher or lower than the stipulated percentage, the allowance "per point of butterfat" agreed upon between producers and dealers is added or subtracted, as the case may be, for each 1/10% variation from the test required for the basic wholemilk price. In the third column of this table there is given either the price per 1/10 pound of butterfat per hundredweight of milk bought on a "straight butterfat basis" or the allowance for a variation of 1/10% from the stipulated percentage of butterfat required for the basic wholemilk price. In the second column of the table there is given the stipulated butterfat test required for the basic price for wholemilk except for markets in which a flat price is paid for all natural unadulterated milk regardless of butterfat test or for markets in which milk prices are dependent upon a "straight butterfat basis."

a Practically all or the greater portion of the market milk supply of this city is reported to be furnished by the local producers who distribute their own supply and therefore there is no well established basic wholesale price quotation in this market.

b The price given for this market in the first column of the table is applicable only to such a portion of each individual producer's supply as comes within the limits of variation in production that is permitted by the terms of his contract with the dealer. In some cases the producer is allowed to stipulate the basic quantity that he intends to deliver each month, and in such cases he is allowed a variation of from 10 to 20%. In other cases the average quantity delivered during certain specified low production months is taken as a basis for determining the exact quantity to which the given price applies; and the average production of the months of November, December and January commonly serve as the basis for such computations. The prices that are to apply to milk delivered in excess or below the stipulated quantities are usually agreed to in advance of delivery and they range from 2/3 to 3/4 of the basic prices given in the first column of the table. In some markets where milk is purchased on a straight butterfat basis the deduction from the price per 1/10% of butterfat in a hundredweight of milk indicated in the third column of this table, amounts to as much as 3/10 of a cent.

c In this market the given price applies by agreement only to such a percentage of the total supply delivered by all the regular patrons of the dealers as will be sold by the dealers in the form of wholemilk. The "surplus price" will apply to all milk converted into cream, skim milk and the various other products actually manufactured by the dealers from their surplus supply of milk. The price to be paid for this surplus milk is to be determined at the end of the month on the basis of the average market value to the dealers of the supply not sold as fluid milk.

d In this market a producer's marketing agency, or association, arranges for the disposition of all surplus milk at whatever prices it is able to obtain, either by selling it to concerns which buy the milk for purposes of converting it into manufactured dairy products or by manufacturing the surplus in factories operated by the association or agency itself.

e In this market the price of milk is to be based on some accepted wholesale market quotations for American cheese. The price given in the first column of this table was obtained by multiplying the average of the quotations for cheese (style-twins) for the first two weeks of the current month by 10 (an assumed average yield of cheese per cwt. of milk) and adding whatever differential has been agreed upon between producers and dealers. In the St. Paul and Minneapolis market the differential agreed upon is \$.50 per cwt. of milk.

f Two distinct "cost prices" are reported for this market. The first price or the upper figure applies to that portion of the city's supply which is obtained from producers making direct shipments to the city; and the second price, or the lower figure applies to that portion of the supply which is received through dealers' country milk stations. It is important to note that, although the same price is to be paid all producers delivering at country stations, the lower figure given in the first column of this table represents the F. O. B. city cost (exclusive of country station operating expenses) for only that portion of the city's supply obtained through country stations, because transportation costs vary according to the distances at which different stations are located from the city. The prices that are to be paid producers for the month of August for 3.5% milk delivered at dealers' country receiving stations are as follows: Chicago, \$3.52; St. Louis, \$3.10; Kansas City \$3.20; Cleveland \$3.30; Buffalo \$3.20; Pittsburgh \$3.25; Indianapolis \$2.80.

g In this market a special allowance is made for butterfat in excess of 4%. This special allowance is based on the current month's wholesale butter prices. In the San Diego market the price applying to this surplus butterfat is 14 cents over the San Francisco butter quotations.

h In this market a special price arrangement applies to milk delivered at dealers' country stations. In the case of the Kansas City and Indianapolis markets the milk delivered at country stations is paid for on a straight butter fat basis at a definitely stipulated price per pound butterfat as indicated in the third column of this table. However, in the case of a few country stations, prices paid for butterfat are to be based on the Chicago butter prices for the current month, a premium of 15 cents per pound butterfat being allowed. In the Columbus market, country prices are to be based upon the current month's wholesale butter prices in Chicago (a premium of 6 cents per pound butterfat being allowed) with a definite allowance of 70 cents per cwt. for the nonfat content of whole milk.

i Bulk milk is not permitted to be sold to retail trade in this market.
CORRECTIONS: The prices paid by milk dealers in Augusta, Georgia were incorrectly reported for the months of May, June, and July. During those months dealers purchased milk on the same basis and at the same price per point butterfat as those reported for this month.

The July price paid by dealers for 3.5% milk delivered in Buffalo was \$3.47 per cwt. for direct shipments, instead of \$3.51.

Retailing Milk through Grocery Stores as a Means of Reducing Prices to Consumers.

Numerous investigations of the costs of marketing fluid milk have developed the fact that in most markets the greater portion of the margin between farm prices and city retail prices of milk goes to defray the expenses of city milk dealers. Analyses of the expenses of numerous dealers in different cities show, moreover, that approximately from 2/3 to 3/4 of the difference between the cost of milk delivered in bulk at city railway terminals and the price at which it is sold to retail trade, is accounted for by the costs of city distribution, i.e., city delivery expenses as distinguished from expenses of plant operation. In other words only about 1/3 or 1/4 of the dealer's total "spread" is to be accounted for by plant expenses such as are entailed in the receiving, weighing, clarifying, pasteurizing, bottling and cooling of the milk, and the cleansing and sterilizing of cans and bottles.

These facts suggest that the greatest possibilities of reducing the costs of market distribution of milk are to be found in the delivery end of the business rather than in plant operations. While there are considerable variations in the plant costs of different milk marketing concerns (dependent largely on the extent to which different sized plants are operated at full capacity) by far the most striking illustration of wastefulness of competitive activities in market distribution are to be found in the great differences in the per unit cost of sales to retail trade. Generally speaking the costs of selling and delivering milk to family trade, after it has been pasteurized and bottled in city milk plants, vary from approximately 22 cents to 4-1/4 cents per quart. One of the chief causes for this wide variation in the expenses of selling and delivering milk, including also the collection and return of empty containers, is to be found in the differences in the

average daily volume of sales per delivery route. On strictly retail routes the average daily sales commonly range from \$25 to \$65, which represent the sale of from approximately 200 to 450 quarts of milk or equivalents expressed in points or units of sale. The cost of operating retail routes is approximately the same, whether the sales are large or small. Consequently, the most effective way of reducing the cost of city distribution of fluid milk, is to increase the average of daily sales per route.

The following table based on the records of sales of two milk dealers operating in Detroit, Michigan, and Kansas City, Kansas, shows the possibilities of greatly reducing the prevailing per unit costs of delivering milk, if milk were retailed exclusively through stores: (Records for July 1918)

Route Number	No. of Customers Served	Average No. of Quarts or Sales Units Delivered Daily	Kind of Delivery Wagon or Truck	No. of Men on Route	Average Amount of Daily Sales	Gross Profits (a) Per Route
1	42	1,571	2 horse wagon	1	\$188.56	\$28.01
2	45	1,419	2 horse wagon	1	\$170.28	\$25.27
3	42	1,266	2 horse wagon	1	\$152.00	\$22.53
4	59	1,236	2 horse wagon	1	\$148.40	\$22.36
5	20	1,302	Auto Truck	1	\$154.86	\$16.15

(a) The term "gross profits" is used in this connection to represent the difference between the gross daily sales and the cost of milk delivered at city plant plus plant expenses, wages and commissions of routemen and cost of feed to horses or oil and supplies of trucks.

A comparison of the average volume of daily sales per route shown in the foregoing table with the usual average amount of sales on most retail routes, would suggest the possibilities of substantial reductions in the prevailing retail prices by marketing milk through retail stores. It is doubtlessly true that wholesale delivery routes are not generally quite as profitable as those referred to in the above table; but cost analyses of other dealers' businesses have shown that after milk has been bottled, it can be distributed through retail stores at a cost to the milk dealer of from $3/4$ to $1-1/4$ cents per quart, provided that retail stores are obliged to pay cash on delivery including payment for shortages in empty bottles returned. Retail stores generally handle milk along with other goods at margins varying from 1, 1 1/2, 2 and 3 cents per quart. However, in cities where a large portion of the market supply of fluid milk is retailed through stores, the prevailing margin of the retailer is not usually greater than 2 cents per quart; and in some instances it is only 1 1/2 cents or even as low as 1 cent per quart. The following table shows the average daily quantities of both Grade A and Grade B milk that were sold at different prices and at different margins of gross profits during the month of November 1918 by 210 typical retail grocery stores in Kansas City, Missouri:

Range of Selling Prices per Quart	Number of Stores Selling at Different Prices		Daily Number of Quarts Sold at Different Prices		Number of Stores Selling at Different Margins of Profit							
					At 1 cent Margin		At 2 cent Margin		At 3 cent Margin			
	Grade A Milk	Grade B Milk	Grade A Milk	Grade B Milk	Grade A Milk	Grade B Milk	Grade A Milk	Grade B Milk	Grade A Milk	Grade B Milk	Grade A Milk	Grade B Milk
12 cts.	1	2	14	55	0	1	1	1	0	0	0	0
13 cts.	0	7	0	192	0	1	0	5	0	1	0	1
14 cts.	5	11	388	330	0	2	6	9	0	0	0	0
15 cts.*	35	15	1336	359	5	1	20	8	10	5	0	0
16 cts.*	63	5	3257	50	30	0	30	4	2	1	0	0
17 cts.	63	0	2154	0	0	0	48	0	15	0	0	0
18 cts.	12	0	779	0	0	0	0	0	12	0	0	0
20 cts.	1	0	50	0	0	0	0	0	1	0	0	0
Totals	181	40	7978	1002	35	6	105	27	40	7	0	0

*Milk dealers' prevailing route prices during month to which this table applies were 15 and 16 cents per quart for Grades B and A respectively.

At present there are comparatively few cities in the United States where milk may be obtained regularly at prices which are lower than those prevailing on milk dealers' retail delivery routes. (See milk price reports issued by this Bureau). Perhaps the main reason for this condition is the fact that under a dual system of retailing milk (selling both from retail routes operated by milk dealers themselves and retail stores supplied by the same or other milk dealers) it is impossible to realize the economies inherent in an exclusive, or out-and-out, store system of retailing milk--the per quart cost of retail route deliveries increases as the volume of retail store sales increases. Unless dealers specialize on wholesale deliveries they cannot usually so organize their sales on delivery routes as to obtain the maximum loads; nor can a milk dealer afford to supply stores at prices substantially lower than his own route prices, when such stores are selling in competition with his own delivery routes.

GEORGE LIVINGSTON

Acting Chief of Bureau.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF MARKETS
Washington, D. C.

September 22, 1919.

THE FLUID MILK MARKET REVIEW FOR THE UNITED STATES.

(Copies of the monthly reports on fluid milk prices in the United States will be sent regularly, free of charge to all persons requesting this service. Requests for these reports should be addressed to the Chief of the Bureau of Markets, U. S. Department of Agriculture, Washington, D. C.).

SEPTEMBER COST AND SELLING PRICES OF "STANDARD GRADE MILK."

The following table presents the prevailing prices of "standard grade milk" paid by different classes of buyers in various markets of the United States. The term "standard grade milk" is used to refer to that grade of milk which is most generally sold within the particular city for which prices are quoted. This grade of milk may be either raw or pasteurized, but in case of most of the larger cities it is pasteurized milk.

Unless otherwise qualified the prices given in the first column in the following table show the cost of milk delivered to dealers at either city railroad terminals or at the dealers' distributing plant where deliveries are made direct by producers. When the price paid by dealers to producers applies to deliveries at country receiving stations and does not include payment for transportation to the city, the average transportation cost of some dealers has been added to the country station price in order that the cost to the dealer (not including country station expenses) may be shown.

The "dealer's spread" or the difference between cost and selling prices for both wholesale and retail transactions, can be ascertained if the butterfat test of milk as delivered to different classes of trade is known. In order to determine the actual cost price of the grade of milk sold in any city, it is necessary to make allowance of the amount given opposite each city in the third column of the table, for each point of butterfat that the milk actually tests above or below 3.5% (the standard arbitrarily assumed as a basis for the comparison of prices given in the first column of the following table). To reduce prices per hundred weight to either a gallon or a quart basis divide by 11.63 or 46.53 respectively.

See footnotes for exceptions to given prices or special contractual provisions relating to the prices to be paid producers in different markets.

TABLE 1. Cost Prices to Dealers and Selling Prices on Routes and at Stores.

MARKETS FOR WHICH PRICES ARE GIVEN	Dealers' Cost Price for Bulk Milk and Butterfat Allowances			Dealers' Route Prices To Wholesale Trade		To Family Trade		Retail Store Prices Cash and Carry		Credit & Delivery
	Per Hundredweight of 3.5% Raw Milk Delivered at City	Per Hundredweight of 3.5% Raw Milk Delivered at City	Price of Allowance per 1/10% Butterfat in a Hundredweight	Per Gallon (in Lots of 5 to 20 Gallons) of Bulk Milk	Per Quart (in Cases of 12) of Bottled Milk	Per Single Quart of Bottled Milk	Per Single Pint of Bottled Milk	Per Quart Measure of Bulk Milk	Per Single Quart of Bottled Milk	Per Single Quart of Bottled Milk
Alabama:	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Birmingham	a	-	-	36-60	-	18-25	-	-	18-20	18-25
Mobile	a	-	-	50	-	20	10	-	20	20
Arizona:										
Phoenix	2.80	StrB.F.	7.0	35	12	14-15	8-8.3	-	-	-
California:										
San Francisco	3.57d	3.6	3.0	39-39.6	12-12.5	14	8-9	-	-	-
Los Angeles	3.64	StrB.F	10.4	50	13	14	8	-	14	14
San Diego	4.03d	StrB.F	11.5g	46.6	13.6	16	9	-	16	-
Colorado:										
Colorado Springs	3.73	3.0	3.5	37.5	12	13	8	-	15	15
Denver	2.98	StrB.F	8.5	35.0	11	13	8	i	-	-
Pueblo	4.44	3.5	12.0	47.5	14	15	8	-	-	-
Connecticut:										
Hartford	3.82f	3.0	4.0	48	14	16	9.5	-	15-16	16
Bridgeport	3.93	3.0	4.0	48	14	16	9.5	i	16	16
New Haven	4.70	Flat	Price	48	14	14	8	-	-	-
Delaware:	4.19f	3.0	4.0	48	14.5	16	7.5-9	i	16	-
Wilmington	3.82	4.0	4.0	48	14	14	8	-	15-16	15-16
Dist. of Columbia:	3.72-									
Washington	4.19	3.5	4.6	39-50	13	15	8-9	-	14-15	15
Florida:										
Jacksonville	4.88	4.2	5.0	50	15	18	10	-	17	18
Miami	a	-	-	70	17.5-20	20	10-12	-	-	-
Georgia:										
Atlanta	5.815	Flat	Price	65	18.5	25	13	-	-	-
Savannah	a	-	-	60-70	20	25	13	i	25	25
Augusta	4.20	StrB.F	12.0	-	13	18	10	-	-	-
Illinois:										
Chicago	3.88f	3.5	4.0	48-50	14-15	15	9	i	15	15
Peoria	3.60	3.5	5.8	35	-	14	-	-	-	-
Rockford	3.55	3.5	4.0	40	12	14	8	-	14	14

Indiana:	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Indianapolis	(3.37f	4.0 StrB.F	8.5	40	11	13	7	-	-	-
Fort Wayne	3.25	Flat	Price	-	12	14	8	-	-	-
South Bend	3.60	Flat	Price	40	11	13	7	-	13	-
Evansville	3.31b	h	5.54	40-46	13	14	8	-	14	14
Iowa:										
Des Moines	3.50	3.5	5.0	45	13	15	8	-	15	15
Sidux City	(3.28f	4.0	6.0	45	14	15	9	-	16	-
Kansas:	(3.22	4.0	2.9							
Kansas City	(3.17f	4.0	2.9	40	12	14	-	-	*	-
Kentucky:										
Louisville	(3.08	4.0	3.5		13	15	8	-	-	-
Lexington	4.20	StrB.F	g Price	35-38 50	15	18	10	-	-	-
Louisiana:	4.14	Flat					8.5	-	-	-
New Orleans	4.87	3.5	2.3	45-50	14	16-17	9	i	17	-
Alexandria			50		-	20	10	-	-	-
Maine:										
Asturn	3.12	h	6.0	44	12.5	14	7	-	14	14
Portland	3.12	h	6.0	44	12.5	14	7	-	14	14
Maryland:	4.15	4.0	5.8							
Baltimore	(3.88f	4.0	5.8	58	15.5	15.5	9	-	-	-
Cumberland	3.95	Flat	Price	54	14	16	9	-	-	-
Massachusetts:										
Boston	4.19c	3.5	4.0	52	14	16	9	i	16	16
Springfield	4.19	Flat	Price	52	14	16	9.5	i	-	-
Fall River	-	-	-	50	13	15	8	-	15	15
Michigan:										
Detroit	4.05	3.5	4.0	47-52	15	16	10	-	16	16
Grand Rapids	3.48	Flat	Price	42	12-13	14	8	i	-	-
Kalamazoo	4.00	Flat	Price	48	13	15	8	-	-	-
Minnesota:										
Minneapolis	3.40de	3.5	5.0	42-44	11.5	13	7	-	12-13	-
St. Paul	3.40de	3.5	5.0	42-44	11.5-12	13	7	-	-	-
Duluth	3.50	3.5	5.0	42	13	15	-	-	15	15
Winona	3.75	Flat	Price	42	11	12	8	-	-	-
Missouri:	3.56	4.0	5.8							
Kansas City	(3.45f	StrB.F	8.0	42-45	12-13	15	8	-	15	15
St. Joseph	2.98	StrB.F	8.5	45	12	15	8	-	15	15
St. Louis	(4.18f	3.5	3.0	-	14	15-16	9	-	15	15
Montana:	(3.89	3.5	3.0	-						
Butte	3.84	Flat	Price	45	12.5	15	8	-	15	-
Nebraska:										
Lincoln	2.94	StrB.F	3.37	44	11.5					
Omaha	(3.50	3.5	5.0							
	(3.13f	3.5	5.0	45	13.5	15.4j	9.1j	-	15	-
New Hampshire:										
Concord	-	3.5	4.0	32-34	12	14	8	-	-	-
New Jersey:										
Newark	3.86	3.0	4.0	44-48	11-13	16	-	-	-	-
Trenton	3.94	4.0	4.0	48	13	14	8	-	15	15
Atlantic City	-	-	-	-	-	17	10	-	-	-
Camden	4.19	Flat	Price	-	-	14	8	-	-	-
New Mexico:										
Albuquerque	-	-	-	50	-	16	-	-	-	-
New York:	3.67	3.0	4.0							
Albany	(3.51f	3.0	4.0	38-42	13.5	15	8.5	-	15	-
New York	3.79	3.0	4.0	44	11	16	9-9.5	11	16	12
Poughkeepsie	3.70	Flat	Price	44	15	15-16	8	-	16	-
Rochester	3.73	3.6	4.0	44-46	12.5	14	7.5-8	-	-	15
Binghamton	4.185	Flat	Price	50	13	14	7.5	-	-	-
Syracuse	3.45	Flat	Price	44	13	15	8	-	15	15
North Dakota:	2.58									
Fargo	3.49	Flat	Price	38-40	11-13	15	8	-	15	15
Jamestown	3.50	Flat	Price	40	-	13	6.5	-	-	-
North Carolina:										
High Point	4.18	-	-	55	-	18	9	-	-	*
Asheville	-	-	-	52	14	17	9	-	17	18
Ohio:										
Cincinnati	3.95	3.5	5.8		12					
Cleveland	(3.85f	3.5	5.0	45	13.5	15	8	-	-	-
Columbus	(3.75f	3.5-4.0	5.0-3.5	44-48	13	14	8	-	14	14
Dayton	(3.70	Flat	Price	42-44	13-13.5	15	8-9	-	-	-
Indianapolis	3.55	4.0	5.0							
Springfield	(-f	h	-	38	12	14	8	-	14	14
Oregon:										
Portland	3.20	Flat	Price	35	12	14	8	12	14	14
Seattle	3.35d	3.8	5.0	45	13	15	9.5	-	16	15.5

	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Pennsylvania:										
Pittsburgh	-	-	-	-	-	-	-	-	-	-
Philadelphia	3.74f	3.5	5.0	54	14.5	-	-	-	-	-
Harrisburg	3.74f	3.0	4.0	44-48	13	14	8	-	14	14
Scranton	3.46	4.0	4.0	48	-	-	-	-	13	13
Rhode Island:	3.69	3.0	4.0	42	13	14	8	-	14	-
Providence	4.18c	3.5	4.0	50	14	16	9.5	-	-	-
Newport	4.47c	Flat	Price	52	13	15	8	i	15	15
South Carolina:										
Charleston	a	-	-	72	18	22	-	-	-	-
Greenville	5.82	Flat	Price	70	-	20	10	-	-	-
Tennessee:										
Memphis	3.72	-	-	-	-	-	-	-	-	-
Nashville	4.08	Flat	Price	44-54	16-18	18	10	-	18	18-20
Chattanooga	2.85	StrB.F.	8.15	45	15	17	9	-	17	17
Texas:	3.20	4.0	5.8	50	14	18	9	-	-	18
Galveston	4.07	-	-	-	-	-	-	-	-	-
El Paso	4.65	Flat	Price	50-60	15	20	10	-	-	-
Utah:	4.40	4.0	4.0	50-55	13	17-19	9-10	-	15-18	-
Salt Lake City	3.37	-	-	-	-	-	-	-	-	-
Vermont:	3.60	3.8	-	35-38	11	12.5	7.5	-	12-13	13
Burlington	4.00	-	-	-	-	-	-	-	-	-
Virginia:	4.50	Flat	Price	40-44	13	15	-	-	15	15
Richmond	4.65	-	-	-	-	-	-	-	-	-
Roanoke	4.71	Flat	Price	52	15	15	8	-	16	16
Washington:	4.07	-	-	-	-	-	-	-	-	-
Seattle	4.20	Flat	Price	46	12	15	7.5-8	-	-	-
Spokane	3.57	3.5	5.0	43.3	11.5	14-15	8-9	-	-	-
West Virginia:	3.50	3.6	5.0	45	12	15	-	-	15	15
Wheeling	4.00	Flat	Price	45	13	15	8	-	15	15
Clarksburg	3.94	Flat	Price	42	13.5	15	-	-	16	-
Wisconsin:	4.00	-	-	-	-	-	-	-	-	-
Milwaukee	4.10c	Flat	Price	42	12	13	7	-	13	13
Feloit	3.55	3.5	4.0	40	13	-	-	-	-	-
Green Bay	3.30	3.5	4.0	40	10.5	12	7	-	12	-

Explanatory Notes Regarding Prices Quoted in Table 1.

* In markets where the price of whole milk is determined entirely on the basis of its butterfat content the price per 1/10 pound of butterfat is given in the third column of this table unless this price has not been agreed upon in advance or is contingent upon current month's butter prices of some market. In such cases the price to be paid per hundredweight of milk of any test, (within the minimum limit prescribed by law and the maximum limit, if any, agreed to between dealers and producers), is determined simply by multiplying the agreed price per pound of butterfat given in the third column of this table, by a number corresponding to the actual weight of butterfat contained in the milk, as determined by the Babcock test. The majority of fluid milk dealers of this country, however, do not buy whole milk on such a "straight butterfat basis". It is a more general practice to pay on the basis of a certain price per hundredweight of milk containing a definitely stipulated percentage of butterfat, such as are given for the various markets in the second column of this table. If the average test of the milk delivered by any producer is either higher or lower than the stipulated percentage, the allowance "per point of butterfat" agreed upon between producers and dealers is added or subtracted, as the case may be, for each 1/10% variation from the test required for the basic whole milk price. In the third column of this table there is given either the price per 1/10 pound of butterfat per hundredweight of milk bought on a "straight butterfat basis" or the allowance for a variation of 1/10% from the stipulated percentage of butterfat required for the basic wholemilk price. In the second column of the table there is given the stipulated butterfat test required for the basic price for wholemilk except for markets in which a flat price is paid for all natural unadulterated milk regardless of butterfat test or for markets in which milk prices are dependent upon a "straight butterfat basis".

a Practically all or the greater portion of the market milk supply of this city is reported to be furnished by the local producers who distribute their own supply and therefore there is no well established basic wholesale price quotation of this market.

b The price given for this market in the first column of the table is applicable only to such a portion of each individual producer's supply as comes within the limits of variation in production that is permitted by the terms of his contract with the dealer. In some cases the producer is allowed to stipulate the basic quantity that he intends to deliver each month, and in such cases he is allowed a variation of from 10 to 20%. In other cases the average quantity delivered during certain specified low production months is taken as a basis for determining the exact quantity to which the given price applies; and the average production of the months of November, December and January commonly serve as the basis for such computations. The prices that are to apply to milk delivered in excess or below the stipulated quantities are usually agreed to in advance of delivery and they range from 2/3 to 3/4 of the basic prices given in the first column of the table. In some markets where milk is purchased on a straight butterfat basis the deduction from the price per 1/10% of butterfat in a hundredweight of milk indicated in the third column of this table, amounts to as much as 3/10 of a cent.

c In this market the given price applies by agreement only to such a percentage of the total supply delivered by all the regular patrons of the dealers as will be sold by the dealers in the form of whole milk. The "surplus price" will apply to all milk converted into cream, skim milk and the various other products actually manufactured by the dealers from their surplus supply of milk. The price to be paid for this surplus milk is to be determined at the end of the month on the basis of the average market value to the dealers of the supply not sold as fluid milk.

d In this market a producer's marketing agency, or association, arranges for the disposition of all surplus milk at whatever prices it is able to obtain, either by selling it to concerns which buy the milk for purposes of converting it into manufactured dairy products or by manufacturing the surplus in factories operated by the association or agency itself.

e In this market the price of milk is to be based on some accepted wholesale market quotations for American cheese. In the St. Paul and Minneapolis market the price to be paid by milk dealers is obtained by multiplying the average of the Plymouth, Wisconsin quotations for cheese (style, "Twins") for the preceding month (28.5¢) by 10 (an assumed average yield of cheese per cwt. of milk), and adding a differential of 55 cents per cwt. of milk to cover the value of whey and extra cost of production and transportation between producers and dealers.

f Two distinct "cost prices" are reported for this market. The first price or the upper figure applies to that portion of the city's supply which is obtained from producers making direct shipments to the city; and the second price, or the lower figure applies to that portion of the supply which is received through dealers' country milk stations. It is important to note that, in markets where the same price is to be paid at all country stations regardless of distance from city, the lower figure given in the first column of this table does not represent the city cost (exclusive of country station operating expenses) for the entire supply obtained through country stations; because transportation costs vary according to the distances at which different stations are located from the city. The prices that are to be paid producers for the month of Sept. for 3.5% milk delivered at dealers' country receiving stations are as follows: Chicago \$3.55; St. Louis, \$3.65; Kansas City \$3.20; Cleveland \$3.40; Buffalo \$3.28; Pittsburgh \$3.25; Indianapolis \$2.975.

g In this market a special allowance is made for butterfat in excess of 4%. This allowance is based on the current month's wholesale butter prices. In the San Diego market the price applying to "surplus butterfat" is 15 cents over the San Francisco butter quotations.

h In this market the price to be paid to each producer is determined by multiplying the price allowed per pound of butterfat by the average number of pounds of butterfat contained in the milk delivered and adding an extra allowance for the non-fat content of whole milk. In those markets where the allowance per pound butterfat is agreed upon in advance, the amount of such an allowance per 1/10 pound butterfat is given in the third column of the table. In case the butterfat allowance is contingent upon some accepted butter market quotations for the current month, the amount of the allowance is not shown. In Evansville, Ind., prices for September were determined by the use of the following formula:- Average of prices paid by local creameries for butterfat during previous months (55.45¢) multiplied by 3.5 (an assumed average butterfat test) and adding the agreed upon cost for 30 pounds of shorts (87¢) plus premium for extra costs of producing high quality milk (40¢) plus an arbitrary allowance on account of seasonal variation of production (10¢).

i Bulk milk is not permitted to be sold to this class of trade.

j In this market the prevailing practice of some dealers is to obtain cash in advance of delivery of milk through sale of tickets which are accepted by routemen in exchange for bottles of milk or cream. The retail prices given in this table are approximate prices per quart and pint bottles of dealers' regular customers who purchase a dollars worth of tickets at a time and by paying "cash in advance" obtain a slight discount in price per quart or pint of milk as compared with the prices paid for a single bottle of milk by persons paying cash or buying on account.

CORRECTIONS: For the month of August the retail prices received at stores in Minneapolis ranged from 13 to 14 cents per quart.

Proria, Illinois- Space for dealers' wholesale price for bottled milk should have been left blank for month of August. No reports at hand covering this item.

REVIEW OF PRICE CHANGES FOR MONTH OF SEPTEMBER.

A comparison of the prices agreed to be paid producers by fluid milk dealers for milk delivered during the month of September in the different markets listed in Table I of this review, with the prevailing prices for August in the same markets shows that for the United States as a whole, "producers prices" increased approximately eight tenths of a cent per quart, or 39 cents per hundredweight. The average of producers' prices reported for the East North Central States (Kentucky, Tennessee, Alabama, Mississippi) remain the same for September as for August. The increases per hundredweight for the other sections of the United States were as follows: New England, 5 cents; Middle Atlantic, 8 cents; East North Central, 9¢ cents; West North Central, 23 cents; South Atlantic, 2 cents; West South Central, 7 cents; Mountain, 26 cents, and Pacific, 9 cents.

A comparison of milk dealers selling prices for August and September shows that out of a total of 101 cities the retail prices were increased in only 39 cities. In most cases the increase in the price of bottled milk delivered to families amounted to either 1/2 or 1 cent per quart. In only one or two cities did the increase amount to as much as 2 cents or more per quart.

DEALERS' SEPTEMBER PRICES FOR SPECIAL GRADES OF MILK AND CERTAIN MILK PRODUCTS.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other dairy products delivered at wholesale buyers' places of business or at the homes of retail consumers in twenty-six leading cities. Wholesale prices are reported on the basis of bulk goods sold to and delivered at establishments of large scale consumers or users. Quotations for wholesale milk and light cream have been reduced to a gallon basis. For heavy cream, the wholesale price is quoted per pound of butterfat. For prices of "standard milk", see Table 1 of this Review.

TABLE 11-- Dealers' Wholesale and Retail Selling Price for Goods Delivered.

Cities	Special		Certi		Common		Special		Light		Heavy	
	or Grade A:		ified:		Butter-		Butter-		Cream		Cream	
	Milk		Milk:		milk:		milk		Cheese		18-20%	
	Whole Re-		Re-tail:		Whole Re-		Re-tail:		Whole Re-		Re-tail:	
	sale:tail:		sale:tail:		sale:tail:		sale:tail:		sale:tail:		sale:tail:	
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	\$	Cts.	\$	per
	per:	per:	per:	per:	per:	per:	per:	per:	per:	per:	per:	Lb.
	Gal.	Qt.	Gal.	Qt.	Gal.	Qt.	Gal.	Qt.	Lb.	Lb.	Gal.	½ pt.
Boston	-	18.5	22-24	29	11	-	20	9	12-30	1.28	14	.85
Springfield	-	-	20	-	8	-	-	-	-	1.30	-	-
New York	46	18	24	-	11	-	-	-	10-20	1.76	19	.99
Buffalo	-	16	25	24	10	-	-	-	20	1.55	20	-
Philadelphia	-	16	26-28	24-28	10	48	13	7	10	1.44-1.60	16-18	.86
Pittsburg	-	-	-	35	-	-	-	11	-	2.00	-	-
Cleveland	-	20	30	25	12	-	15	11	15	1.80	20	1.11
Chicago	-	22	25	40	10	-	18	15	20	1.60-1.75	16	1.03
Milwaukee	-	15	25	26	8	-	-	8-12	12-18	1.60	15	-
Detroit	-	20	23	28	11	-	-	9	16	1.80	16	1.07
Minneapolis	-	-	-	20	6	-	-	-	-	1.60	14	.95
St. Louis	-	18	22	-	11	-	12	-	12-15	-	17	-
Des Moines	-	17	-	20-28	10	-	16	10-15	15-20	1.50-2.00	15	*
Washington	-	16-17	28	42-50	14-15	-	20	11-15	15	1.70	17	.85-1.30
Richmond	-	16	-	28	8	-	15	-	-	1.50	15	-
Jacksonville	-	22	-	-	-	-	-	30	-	2.40	18	1.21
Baltimore	-	20	-	53	15.5	-	-	-	-	-	-	1.13
Louisville	-	-	-	25	8	-	15	-	-	1.40	15	.95
Memphis	-	-	25	36	10	-	10	-	20	1.45	18	.89
New Orleans	-	18	25	44	11	40	14	-	-	1.55-1.97	14	.85
El Paso	-	-	-	-	-	40	11	-	-	1.75	17	.90
Colo. Springs	-	15	-	15	7	-	-	-	-	1.60	26	.966
Salt Lake City	-	15	-	-	-	-	-	-	-	1.60	12.5-15	.90
Portland	-	15.5	20	15	55	-	-	7	15	1.65	16	1.07
Seattle	-	-	22	20-23	5	25	10	-	-	1.75-1.80	15-16	1.05
San Francisco	-	-	20	20-22	8	-	14	12	15	1.70	14	.96

PRODUCERS' SEPTEMBER PRICES FOR STANDARD AND SPECIAL GRADE MILK.

The following table presents a comparison of the prices per hundredweight of both common and special grades of raw milk which have been offered or agreed to for the present month by dealers or concerns whose chief business is the market distribution of fluid milk. These prices are to be paid producers who make deliveries in their own cans either at local milk plants or at country shipping stations. They are based on the prices given for each market listed in Table 1, of this issue of the Review and a few additional markets not included in that table. The much larger number of "local markets" given in the following table is to be explained by the fact that in Table 1, the cost prices to dealers are given on an f.o.b. city basis, and that these basic prices, reduced by the transportation rates applicable to different distance zones, are the prevailing prices for practically all of the numerous milk stations and railway shipping points from which considerable shipments of milk are regularly made to the cities listed in that table. The "weighted average" prices given in the following table were obtained on the basis of the averages net prices applying to the different shipping points supplying each market given in Table 1. The final averages shown in the following table, were obtained by "weighting" the average net producers' price of each distinct market in accordance with the number of local railway shipping points and milk stations supplying each of those cities.

The prices given herewith apply to milk testing 3.5% butterfat, as do also the Producers' prices given in the first column of Table 1.

TABLE 111. Range and Average of Net Prices at Producers' Local Delivery Points.

Geographic Sections	For Standard or Grade B Milk			For Special or Grade A Milk		
	No. of	Range of	Weighted	No. of	Range of	Weighted
	Local	Prices	Average	Local	Prices	Average
	Markets:	Applicable:	Price	Markets:	Applicable:	Price
UNITED STATES	624	\$2.26-\$5.59	\$3.79	146	\$3.20-\$5.61	\$3.85
New England	79	\$2.90-\$4.67	\$3.81	11	\$5.16-\$5.61	\$5.39
Middle Atlantic	106	\$3.11-\$4.19	\$3.45	76	\$3.46-\$3.93	\$3.66
E. North Central	192	\$2.69-\$4.00	\$4.35	7	\$3.56-\$4.38	\$4.09
W. North Central	90	\$2.58-\$3.97	\$3.33	13	\$3.20-\$3.90	\$3.56
South Atlantic	64	\$3.05-\$5.59	\$3.81	18	\$3.95-\$4.62	\$4.28
E. South Central	11	\$2.56-\$4.02	\$3.23	1	\$4.37-\$4.37	\$4.37
W. South Central	18	\$3.93-\$4.40	\$4.13	2	\$4.70-\$4.75	\$4.73
Mountain	25	\$2.65-\$4.19	\$3.24	2	\$3.20-\$3.91	\$3.85
Pacific	39	\$2.26-\$3.77	\$3.34	15	\$3.20-\$3.95	\$3.72

THE BASES OF PRODUCERS' MILK PRICES.

What are the prices of milk bases on? Or what are the immediate bases of the changes in prices? The answer that milk producers and dealers almost invariably make to such questions is that "prices are determined by the law of supply and demand. Economists, or students of economic values and market conditions, generally offer the explanation that under competitive conditions the "long-run average price" of milk (like that of most other commodities) tends to equal the cost of production plus a reasonable profit; and that seasonal changes in prices are caused chiefly by changes in the demand for and the supply of fresh milk available for market distribution. Undoubtedly these are the basic factors affecting the prices of all commodities; but the mere citation of fundamental economic laws does not explain the methods by which milk prices are determined or the immediate bases of current price changes.

In most of the more important milk producing and market areas of the United States, buyers of milk stipulate in advance the prices they will pay producers for milk to be delivered during certain months of the year. Formerly it was customary for milk dealers in some markets to issue, during September, their schedules of "winter prices" for the six months beginning with October and ending with March of the ensuing year. Their schedules of "summer prices" applying to the remaining six months of the year were usually issued during the month of March. Since 1917, however, advance price announcements by dealers, or price agreements between producers' marketing associations and milk dealers, have not generally applied to more than monthly periods.

As a general proposition such monthly price schedules are formulated on the basis of considerations of current costs of production and the available market supply of milk. But producers and dealers have not always been able to agree in advance with regard either to the probable cost of production or the volume of the available supply of milk in excess of a particular city's requirements for fresh milk. The result has been that various bases have been employed for facilitating price agreements. Although these price agreements are variously worded-- and many of them have certain features that are peculiar to only one or two markets-- when reduced to their simplest terms or most essential provisions, practically all of them fall into some one of the following seven classes, which are briefly described under the two following headlines:

Prices Determined in Advance of Delivery.

(1) Price agreements based on general considerations of probable cost of production and the available supply in relation to the estimated market requirements, with or without allowances for variations in butterfat test or other criteria of the wholesomeness or quality of the product delivered. (At present this is the prevailing basis of prices paid by leading fluid milk dealers in most of the markets of the United States.)

(2) Prices based on the previous month's prices of cheese in some primary cheese market, with an additional allowance for the extra costs of producing a high quality of milk plus the estimated value of whey for feeding purposes on the farm. (See footnote regarding producers' prices in the St. Paul and Minneapolis market.)

(3) Prices based on the previous month's prices of butter in some important butter markets like Chicago, New York and San Francisco, either with or without separate allowances for the value of the non-fat content plus an extra allowance for special quality of milk, and sometimes an arbitrary allowance for variations in seasonal costs of production. (See footnote applicable to producers' prices in the Evansville, Indiana, market.)

(4) Prices based on both butter and cheese prices as shown by agreed upon quotations for a period of a month preceding the date of the announcement of prices to be paid for the ensuing month. This composite basis (a combination of the bases (2) and (3) just described) has been used for several months in the New York market and the prices obtained by the use of this basis is practically an average of the two prices obtained by the use of two formulas similar to those in use in the Minneapolis and Evansville markets. The allowance for value of whey, skim milk; extra costs of quality, and variations in seasonal costs of production, vary with different localities.

Prices Based on Current Month's Prices of Milk or Manufactured Milk Products.

(5) Same as arrangement (3) except that prices cannot be determined until several days after the end of the month in which delivery of milk was made. (This arrangement exists between certain dealers and producers in the Louisville, San Diego and Indianapolis markets.)

(6) Prices based on the net market returns to dealers. In the case of cooperative concerns such an arrangement often applies to all milk handled, whether sold in the form of fluid milk and cream or disposed of or held in the form of manufactured milk products. In case of private milk marketing concerns, however, such a price basis is sometimes applicable only to "surplus milk" that has been converted into various manufactured milk products. (See footnotes relating to surplus milk in the Boston Market.)

(7) Prices contingent upon the prevailing prices of milk in some large centers of consumption or at various condenseries, cheese factories or milk stations supplying some large market. (Such price agreements are very common among many small scale milk dealers or manufacturers of cheese or condensed milk.)

(To be continued next month's issue of the Milk Market Review.)

GEORGE LIVINGSTON,
Acting Chief of Bureau.

UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF MARKETS

Washington, D. C.

October 22, 1919.

FLUID MILK MARKET REPORT FOR THE UNITED STATES.

(Copies of the monthly reports on fluid milk prices in the United States will be sent regularly, free of charge to all persons requesting this service. Requests for these reports should be addressed to the Chief of the Bureau of Markets, U. S. Department of Agriculture, Washington, D. C.)

OCTOBER COST AND SELLING PRICES OF "STANDARD GRADE MILK".

The following table presents the prevailing prices of "standard grade milk" paid by different classes of buyers in various markets of the United States. The term "standard grade milk" is used to refer to that grade of milk which is most generally sold within the particular city for which prices are quoted. This grade of milk may be either raw or pasteurized, but in case of most of the larger cities it is pasteurized milk.

Unless otherwise qualified the prices given in the first column in the following table show the cost of milk delivered to dealers at either city railroad terminals or at the dealers' distributing plant where deliveries are made direct by producers. When the price paid by dealers to producers applies to deliveries at country receiving stations and does not include payment for transportation to the city, the average transportation cost of some dealers has been added to the country station price in order that the cost to the dealer (not including country station expenses) may be shown.

The "dealer's spread" or the difference between cost and selling prices for both wholesale and retail transactions, can be ascertained if the butterfat test of milk as delivered to different classes of trade is known. In order to determine the actual cost price of the grade of milk sold in any city, it is necessary to make allowance of the amount given opposite each city in the third column of the table, for each point of butterfat that the milk actually tests above or below 3.5% (the standard arbitrarily assumed as a basis for the comparison of prices given in the first column of the following table). To reduce prices per hundredweight to either a gallon or a quart basis divide by 11.63 or 46.53 respectively.

See footnotes for exceptions to given prices or special contractual provisions relating to the prices to be paid producers in different markets.

TABLE 1. Cost Prices to Dealers and Selling Prices on Routes and at Stores.

MARKETS FOR WHICH PRICES ARE GIVEN	Dealers' Cost Price for Bulk Milk and Butterfat allowances.			Dealers' Route Prices To Wholesale Trade			Prices To Family Trade			Retail Store Prices Cash and Carry			Credit & Delivery	
	Delivered at City	Per Hundredweight of 3.5 % Raw Milk	Butterfat Test Required for B Basic Prices ****	Price or Allowance per 1/10% Butter- fat in Ovt. ****	Per Gal. (in lots of 5 to 20 Gal.) of Bulk Milk	Per Quart (in Cases of 12) of Bottled Milk	Per Single Pint of Bottled Milk	Per Single Pint of Bottled Milk	Per Single Pint of Bottled Milk	Per Quart Measure of Bulk Milk	Per Single Quart of Bottled Milk	Per Single Quart of Bottled Milk	Per Single Qt. of Bottled Milk	Per Single Qt. of Bottled Milk
Alabama:	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Birmingham	a	-	-	36-60	12.5-15	18-25	9-12.5	-	-	-	-	-	-	-
Mobile	a	-	-	50-60	20	20-24	10-12	-	-	-	-	-	-	-
Arizona:														
Phoenix	2.52	StrB.F	7.2	35	-	14	8.3	-	-	-	-	-	-	-
Arkansas:														
Little Rock	4.20	StrB.F	12.0	55	17	20	11	-	20	20	20	20	20	20
California:														
San Francisco	3.57d	3.6	3.0	41.6	12-13	14-15	8-9	-	-	-	-	-	-	-
Los Angeles	3.675	StrB.F	10.5	50	13	14	8	-	14	14	14	14	14	14
San Diego	-d	-	-g	47	13.6	16	9	-	16	16	16	16	16	16
Colorado:														
Colo. Springs	3.66	3.0	3.5	40	12	13	7.7-8	-	13-15	13-15	13-15	13-15	13-15	13-15
Denver	2.98	StrB.F	8.5	35	11	13	8	i	-	-	-	-	-	-
Pueblo	3.96	3.5	12.0	47.5	14	15	8	-	-	-	-	-	-	-
Connecticut:														
Hartford	4.33	4.0	4.0	48	14	16	9.5	-	16	16	16	16	16	16
Bridgeport	3.74	3.0	4.0	48	14	16	9.5	i	16	16	16	16	16	16
New Haven	4.70	Flat	Price	48	14-14.5	16	7.5-9	i	16	-	-	-	-	-
	4.19f	3.0	4.0	48	14-14.5	16	7.5-9	i	16	-	-	-	-	-
Dist. of Col:														
Washington	5.12	3.5	4.6	55-60	16	18	9-10	-	17	18	18	18	18	18
Florida:														
Jacksonville	5.40	4.2	5.0	45-58	17	9	20	-	18	-	-	-	-	-
Miami	3.80f	4.2	5.0	70	17.5-20	23-25	15	-	-	-	-	-	-	-
Tampa	a	-	-	50	15	18-20	10	-	-	-	-	-	-	-
4.65	Flat	Price	50	15	18-20	10	-	-	-	-	-	-	-	-
Georgia:														
Atlanta	5.82	Flat	Price	65	17.5-20	20-25	13-15	-	25	-	-	-	-	-
Augusta	3.66	StrB.F	10.46	-	13	18	10	-	-	-	-	-	-	-
Illinois:														
Chicago	4.13	3.5	4.0	48-50	14-15	15	9	i	15	15	15	15	15	15
Peoria	3.95f	3.5	4.0	35-37.5	-	14	-	-	-	-	-	-	-	-
Rockford	3.60	3.5	5.8	40	12	14	8	-	14	14	14	14	14	14
	3.63	3.5	4.0	40	12	14	8	-	14	14	14	14	14	14

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	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Indiana:										
Indianapolis	-	-	42	42	11.5-12	5	14	8	-	14
Fort Wayne	3.95	Flat	Price	45	13	15	8	-	-	-
South Bend	3.60	Flat	Price	40	11	13	7	13	13	13
Evansville	3.42b	h	5.14	42	13	14	8	-	14	14
Iowa:										
Des Moines	3.50-3.65	3.5	5.0	45	13	15	8	-	15	15
Sicux City	3.70-4.10	4.0	6.0	-	-	-	-	-	-	-
	2.15-3.55	4.0	6.0	45	14-14.5	15-16	9-10	-	15-16	15-16
Clinton	3.43	Flat	Price	40	11	12.5	-	-	-	-
Kansas:										
Kansas City	3.41-3.56	4.0	3.9	-	-	-	-	-	-	-
Topsham	3.50	Flat	Price	45	13	15	8	-	-	-
Kentucky:	3.55-3.90	4.0	3.5	-	-	-	-	-	-	-
Louisville	-f	StrB.F	g	43	13	15	8	-	-	-
Lexington	4.65	Flat	Price	60	15	18-20	10	-	-	-
Louisiana:										
New Orleans	5.10	4.0	4.65	55	17	19	10	i	19	19
Alexandria	5.82	Flat	Price	60	-	20	10	-	-	-
Maine:										
Andown	Undertermined	h	-	46	13	14.5	8	-	-	-
Portland	Undertermined	h	-	46	-	14	7	-	-	-
Maryland:	4.36	4.0	5.8	-	-	-	-	-	-	-
Baltimore	3.94f	4.0	5.8	58-60	16	16	9	-	16	16
Cumnerland	3.95	Flat	Price	54	14	16	9	-	-	-
Massachusetts										
Boston	4.42c	3.5	4.0	52-54	14-14.5	16.5	9-9.75	i	16.5	16.5
Springfield	4.42	Flat	Price	52	14	16	9	i	12	-
Fall River	4.81	Flat	Price	-	-	-	-	-	15	-
Michigan:										
Detroit	4.05	3.5	4.0	42-52	15	16	10	-	16	16
Grand Rapids	3.48	Flat	Price	42	12-13	14	8	i	14	14
Kalamazoo	4.00	Flat	Price	48	13	15	8	-	-	-
Minnesota:										
Minneapolis	3.36de	3.5	5.0	42	11.5	13	7	-	13	13
St. Paul	3.32de	3.5	5.0	44	12	13	7	-	-	-
Duluth	3.50	3.5	5.0	42	13	15	8.5	-	14-15	-
Winona	3.70	Flat	Price	46	12	13	8	-	-	-
Missouri:	3.15-3.36	4.0	4.07	-	-	-	-	-	-	-
Kansas City	3.10f	StrB.F	8.0	40-45	12-14	14-15	8	-	15	15
St. Joseph	3.50	StrB.F	10.0	45	13	15	8	-	15	15
	4.29	3.5	3.0	-	-	-	-	-	-	-
St. Louis	3.94f	3.5	3.0	48-50	14-15	15-16	9	-	16	16
Montana:										
Butte	3.49-3.89	Flat	Price	45	12.5	15	8	-	13	15
Nebraska:										
Lincoln	3.06	StrB.F	8.75	44	12	13.5	8	-	14	-
New Hampshire:										
Concord	-	-	-	-	12	14	-	-	-	-
New Jersey:	3.76	3.0	4.0	-	-	-	-	-	-	-
Newark	3.68f	3.0	4.0	44-48	13	16	11	-	-	-
	3.94	4.0	4.0	-	-	-	-	-	-	-
Trenton	3.70f	4.0	4.0	48	13	14	8	-	15-16	15-16
Atlantic City	-	-	-	-	-	17	10	-	17	-
Cauden	4.19	Flat	Price	-	-	14	8	-	-	-
New York:	3.57	3.0	4.0	-	-	-	-	-	-	-
Buffalo	3.41f	3.0	4.0	38-40	13.5	15	8.5	-	13	15
New York	3.75	3.0	4.0	44	11	16	9-9.5	11	16	12
Albany	3.66	Flat	Price	38-44	14-15	15-16	8-9	-	15-16	16-18
Rochester	3.57-3.61	3.6	4.0	46	12.5	13.5-14	7.5-8	-	-	-
Binghampton	4.185	Flat	Price	50	13	14	7.5	-	-	-
Syracuse	3.52	3.0	4.0	44	13	15	8	-	15	-
Utica	3.83	3.0	4.0	38	12	14	7	-	14	14
North Dakota:										
Fargo	2.58-3.49	Flat	Price	30-40	12	15-17	8	-	15-17	-
Jamestown	3.00	Flat	Price	40	-	12-15	7	-	-	-
North Carolina:										
High Point	3.663	StrB.F	10.46	60	18	18	-	-	-	-
Asheville	4.80	3.3	4.0	55	15	18	9	-	18	19
Oklahoma:										
Tulsa	4.80	3.5	10.0	55	16	-	-	-	-	-
Ohio:	4.19	3.5	5.8	-	-	-	-	-	-	-
Cleveland	3.85f	3.5	5.0	45	13.5	15	9	-	15	15
	3.70	-	-	-	-	-	-	-	-	-
Cincinnati	Undertermined	-	-	44-48	13	14	8	-	14	14
Toledo	3.80-3.85	Flat	Price	42	13-13.5	15	8	-	-	-
	3.75	4.0	5.0	-	-	-	-	-	-	-
Columbus	-f	h	-	40	12	14	8	-	-	-
Dayton	3.33	4.0	5.0	40	12	14	8	-	-	-
Oregon:										
Eugene	3.35	Flat	Price	40	12	14	8	-	14	14
Portland	3.75d	3.8	5.0	50	13.5	15-16	10-10.5	-	17	17

	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Pennsylvania:										
Pittsburgh	4.42	3.5	3.0							
Philadelphia	4.68	3.5	3.0	52-57	45.5	16	9.5	-	-	-
Harrisburg	3.71	3.0	4.0	41-48	13	14	8	-	14	14
Scranton	3.46	4.0	4.0	48	12	13	7	-	13	13
Rhode Island:	3.61-3.75	3.0	4.0	42	13	14	8	-	14	14
Rhode Island:										
Providence	4.437 c	3.5	4.0	56	14.5	16.5	9.6	-	-	-
Newport	4.47 c	Flat	Price	52	13	15	8	i	15	15
South Carolina:										
Charleston	a	-	-	72	-	22	-	-	22	-
South Dakota:										
Sigaux Falls	4.00	Flat	Price	45	14	14	8	-	-	-
Tennessee:										
Memphis	4.19-4.42	Flat	Price	44	16	18	10	-	18	18-20
Nashville	3.25	StrB.F	9.28	50	16	17	10	-	17	-
Chattanooga	3.49	4.0	5.8	50	14	18	9	-	-	-
Texas:										
Fort Worth	3.85	StrB.F	11.0	55	-	20	12	-	-	-
Galveston	4.65-5.06	Flat	Price	50-60	15	20	10	-	20	20
El Paso	4.40	4.0	4.0	50	13-15	17-20	9-10	-	15-17	15-18
San Antonio	3.50	StrB.F	10.0	45	15	17	9	-	17	17
Utah:										
Salt Lake City	3.00-3.60	Flat	Price	35	11	13	7-7.5	-	13	13
Vermont:										
Burlington	4.00	Flat	Price	52	13	14-15	-	-	14-15	14-15
Virginia:										
Richmond	4.65-4.71	Flat	Price	52	15	15	8	-	16	16
Roanoke	4.65-4.80	Flat	Price	52-56	14	17	8.5-9	-	-	-
Washington:										
Seattle	3.58	3.5	5.0	45	12	14-15	8-9	-	-	-
Spokane	3.50	3.6	3.0	43-45	13	15	10	-	15	15
West Virginia:										
Wheeling	4.00	Flat	Price	45	13	15	8	-	15	15
Clarksburg	3.94	Flat	Price	42	14	15	8	-	-	-
Wisconsin:										
Milwaukee	4.05-4.10	Flat	Price	42	12	13	7	-	13	13
Beloit	3.63	3.5	4.0	40	12	13	7	-	-	-
Green Bay	3.50	3.5	4.0	40	10.5	12	7	10.5	12	12
La Crosse	3.26-3.60	Flat	Price	28-36	10	11.75	6	-	11-13	13

Explanatory Notes Regarding Prices Quoted in Table 1.

**** In markets where the price of whole milk is determined entirely on the basis of its butterfat content the price per 1/10 pound of butterfat is given in the third column of this table unless this price has not been agreed upon in advance or is contingent upon current month's butter prices of some market. In such cases the price to be paid per hundredweight of milk of any test, (within the minimum limit prescribed by law and the maximum limit, if any, agreed to between dealers and producers), is determined simply by multiplying the agreed price per pound of butterfat given in the third column of this table, by a number corresponding to the actual weight of butterfat contained in the milk, as determined by the Babcock test. The majority of fluid milk dealers of this country, however, do not buy whole milk on such a "straight butterfat basis". It is a more general practice to pay on the basis of a certain price per hundredweight of milk containing a definitely stipulated percentage of butterfat, such as are given for the various markets in the second column of this table. If the average test of the milk delivered by any producer is either higher or lower than the stipulated percentage, the allowance "per point of butterfat" agreed upon between producers and dealers is added or subtracted, as the case may be, for each 1/10 % variation from the test required for the basic whole milk price. In the third column of this table there is given either the price per 1/10 pound of butterfat per hundredweight of milk bought on a "straight butterfat basis" or the allowance for a variation of 1/10% from the stipulated percentage of butterfat required for the basic whole milk price. In the second column of the table there is given the stipulated butterfat test required for the basic price for whole milk except for markets in which a flat price is paid for all natural unadulterated milk regardless of butterfat test or for markets in which milk prices are dependent upon a "straight butterfat basis".

a Practically all or the greater portion of the market milk supply of this city is reported to be furnished by the local producers who distribute their own supply and therefore there is no well established basic wholesale price quotation of the market.

b The price given for this market in the first column of the table is applicable only to such a portion of each individual producer's supply as comes within the limit of variation in production that is permitted by the terms of his contract with the dealer. In some cases the producer is allowed to stipulate the basic quantity that he intends to deliver each month, and in such cases he is allowed a variation of from 10 to 20 %. In other cases the average quantity delivered during certain specified low production months is taken as a basis for determining the exact quantity to which the given price applies; and the average production of the months of November, December and January commonly serve as the basis for such computations. The prices then are to apply to milk delivered in excess or below the stipulated quantities as agreed to in advance of delivery and they range from 2/3 to 3/4 of the basic prices given in the first column of the table. In some markets where milk is sold on a straight butterfat basis the deduction from the price per 1/10 of butterfat per hundredweight of milk indicated in the third column of this table, amounts to as much as 8/10 of a cent.

c In this market the given price applies by agreement only to such a percentage of the total supply delivered by all the regular patrons of the dealers as will be sold by the dealers in the form of wholemilk. The "surplus price" will apply to all milk converted into cream, skim milk and the various other products actually manufactured by the dealers from their surplus supply of milk. The price to be paid for this surplus milk is to be determined at the end of the month on the basis of the average market value to the dealers of the supply not sold as fluid milk.

d In this market a producer's marketing agency, or association, arranges for the disposition of all surplus milk at whatever prices it is able to obtain, either by selling it to concerns which buy the milk for purposes of converting it into manufactured dairy products or by manufacturing the surplus in factories operated by the association or agency itself.

e In this market the price of milk is to be based on some accepted wholesale market quotations for American cheese. In the St. Paul and Minneapolis market the price to be paid by milk dealers is obtained by multiplying the average of the Plymouth, Wisconsin quotations for cheese (style, "Twins") for the preceding month (27.15¢) by 10 (an assumed average yield of cheese per cwt. of milk), and adding a differential of 65 cents per cwt. of milk to cover the value of whey and extra cost of production and transportation between producers and dealers.

f Two distinct "cost prices" are reported for this market. The first price or the upper figure applies to that portion of the city's supply which is obtained from producers making direct shipments to the city; and the second price, or the lower figure applies to that portion of the supply which is received through dealers' country milk stations. It is important to note that, in markets where the same price is to be paid at all country stations regardless of distance from city, the lower figure given in the first column of this table does not represent the city cost (exclusive of country station operating expenses) for the entire supply obtained through country stations; because transportation costs vary according to the distances at which different stations are located from the city. The prices that are to be paid producers for the month of October for 3.5% milk delivered at dealers' country receiving stations are as follows: Chicago \$3.63; St. Louis, \$3.70; Cleveland \$3.60; Buffalo \$3.18; Pittsburgh \$3.60.

g In this market a special allowance is made for butterfat in excess of 34%. This allowance is based on the current month's wholesale butter prices. In the San Diego market the price applying to "surplus butterfat" is from 14 to 20 cents over the San Francisco butter quotations.

h In this market the price to be paid to each producer is determined by multiplying the price allowed per pound of butterfat by the average number of pounds of butterfat contained in the milk delivered and adding an extra allowance for the non-fat content of whole milk. In those markets where the allowance per pound butterfat is agreed upon in advance, the amount of such an allowance per 1/10 pound butterfat is given in the third column of the table. In case the butterfat allowance is contingent upon some accepted butter market quotations for the current month, the amount of the allowance is not shown. In Evansville, Ind., prices for October are determined by the use of the following formula:- Average of prices paid by local creameries for butterfat during 30 days previous to 20th of current month (57.4 ¢) multiplies by 3.5 (an assumed average butterfat test) and adding the agreed upon cost for 50 pounds of shorts plus premium for extra costs of producing high quality milk (40¢) plus an arbitrary allowance on account of seasonal variation of production (15¢).

i Bulk milk is not permitted to be sold to this class of trade.

j In this market some dealers make a reduced price of one cent on each quart of milk and one-half cent on each pint of milk when payment is paid at office on or before the 15th of month in which delivery is made.

PRODUCERS' PRICES FOR SEPTEMBER AND OCTOBER COMPARED.

The average price for all sections of Grade B milk as compiled from Table 111 of this report is 15 cents per cwt. or approximately 1/3 cents per quart higher than the September price. The increase or decrease in the average price for the various sections is as follows: New England, 14 cents increase; Middle Atlantic 6 cents decrease; East North Central, 11 cents increase; West North Central, 3 cents increase; South Atlantic, 68 cents increase; East South Central, 44 cents increase; West South Central, 32 cents increase; Mountain, 12 cents decrease; Pacific, 4 cents increase.

In checking the compilation of the September report an error was found in the East North Central Section which made an error in the price reported for the entire United States. The corrected price for last month for the East North Central section is \$3.51 per cwt. and for the United States, \$3.53.

DEALERS' OCTOBER PRICES FOR SPECIAL GRADES OF MILK AND CERTAIN MILK PRODUCTS.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other dairy products delivered at wholesale buyers' places of business or at the homes of retail consumers in twenty-six leading cities. Wholesale prices are reported on the basis of bulk goods sold to and delivered at establishments of large scale consumers or users. Quotations for wholesale milk and light cream have been reduced to a gallon basis. For heavy cream, the wholesale price is quoted per pound of butterfat. For prices of "Standard milk", see Table 1 of this Review.

TABLE 11-- Dealers' Wholesale and Retail Selling Price for Goods Delivered.

Cities	Special Certi-		Common		Special		Light		Heavy			
	or Grade A:		Butter-		Butter-		Cottage		Cream			
	Milk		Milk		milk		milk		Cheese			
	Whole Re-		Re-		Whole Re-		Whole Re-		Whole-			
	sale:	tail:	tail:	sale	tail:	sale:	tail:	sale	tail:	sale		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	\$ per		
per	per	per	per	per	per	per	per	per	per	Lb.		
Gal.	Qt.	Qt.	Gal.	Qt.	Gal.	Qt.	Lb.	Lb.	Gal.	B. F.		
Boston	-	18-19	22-25	30	8-11	-	20	-	30	1.28	14	.89
Springfield	-	-	20	-	8	-	-	-	-	1.30	15	-
New York	46	18	24	-	11	-	-	7	10	1.76	19	.99
Buffalo	-	16	25	24	10	-	-	-	20	1.55	20	-
Philadelphia	-	16	26-28	24-28	8-10	48	13	7	10	1.44-1.60	16-18	.86
Pittsburg	-	-	21-22	35-40	12	-	-	11-12	-	1.80-2.10	20	1.12-1.20
Cleveland	-	20	30	25	12	-	15	11	15	1.80	20	1.11
Chicago	-	22	25	40	10	-	18	-	19.2	1.75-1.90	16-18	1.03
Milwaukee	-	15-18	25	20-26	8	-	-	8-12	18.6	1.60-2.20	15	.91
Detroit	-	20	23	28	11	-	-	9	16	1.60-1.80	16	1.07
Minneapolis	-	-	20	12-20	6	-	12	10.6	16	1.60	14	.90-.95
St. Louis	-	18	22	25	11	-	12-15	-	13-16	1.50	16-17	1.20
Des Moines	-	17	-	28	10	45	16	11-15	17-20	1.50-2.00	15	1.00
Washington	*	19	30	48-60	14-18	-	20	11	15	1.90-2.20	18-19	1.33
Richmond	64	16	-	28-32	8	-	15	-	-	1.50	15	-
Jacksonville	-	25	-	27	-	-	12	-	-	1.90	20	.90
Baltimore	-	20	-	58	16	-	-	-	-	1.80	20	1.09-1.13
Louisville	-	-	-	24-25	8	-	15	-	-	1.50-1.80	15	-
Memphis	-	-	25	36	12	-	-	-	20	1.60	18	-
New Orleans	-	19	25	50	15	50	17	-	-	1.80	16	.95
San Antonio	-	-	-	30	8	-	-	15	20	2.00	15	1.20
Colo. Springs	45	15-16.6	-	15	7	-	-	12	15	1.60	13	1.09
Salt Lake City	-	15	-	15-20	8	25	7.5-10	12.5-15	20	1.65	15	.897
Portland	-	16	20-21	20	7	50	16	7	15	1.80	17	1.20
Seattle	-	-	22	15-23	5-9	23	10	-	-	1.70-1.80	15-16	1.05
San Francisco	-	-	20-24	-	8	-	14	-	15	1.50-2.00	14	.89-.96

PRODUCERS' OCTOBER PRICES FOR STANDARD AND SPECIAL GRADE MILK.

The following table presents a comparison of the prices per hundredweight of both common and special grades of raw milk which have been offered or agreed to for the present month by dealers or concerns whose chief business is the market distribution of fluid milk. These prices are to be paid producers who make deliveries in their own cans either at local milk plants or at country shipping stations. They are based on the prices given for each market listed in Table 1, of this issue of the Review and a few additional markets not included in that table. The much larger number of "local markets" given in the following table is to be explained by the fact that in Table 1, the cost prices to dealers are given on an f.o.b. city basis, and that these basic prices, reduced by the transportation rates applicable to different distance zones, are the prevailing prices for practically all of the numerous milk stations and railway shipping points from which considerable shipments of milk are regularly made to the cities listed in that table. The "weighted average" prices given in the following table were obtained on the basis of the averages net prices applying to the different shipping points supplying each market given in Table 1. The final averages shown in the following table, were obtained by "weighing" the average net producers' price of each distinct market in accordance with the number of local railway shipping points and milk stations supplying each of those cities.

The prices given herewith apply to milk testing 3.5% butterfat, as do also the Producers' prices given in the first column of Table 1.

TABLE 111. Range and Average of Net Prices at Producers' Local Delivery Points

Geographic Sections	For Standard or Grade B Milk			For Special or Grade A Milk		
	No. of	Range of	Weighted	No. of	Range of	Weighted
	Local	Prices	Average	Local	Prices	Average
	Markets	Applicable	Price	Markets	Applicable	Price
UNITED STATES	638	\$2.52-\$5.81	\$3.68	149	\$3.05-\$6.21	\$3.87
New England	74	\$3.16-\$4.62	\$3.95	7	\$3.86-\$4.97	\$4.34
Middle Atlantic	110	\$3.11-\$4.19	\$3.39	78	\$3.28-\$4.93	\$3.62
E. North Central	198	\$2.70-\$4.06	\$3.62	10	\$3.05-\$6.09	\$4.38
W. North Central	89	\$2.58-\$4.08	\$3.36	14	\$3.27-\$4.66	\$3.57
South Atlantic	62	\$3.35-\$5.58	\$4.49	21	\$3.54-\$5.80	\$4.58
E. South Central	11	\$2.96-\$4.46	\$3.67	2	\$5.01-\$6.21	\$5.61
W. South Central	31	\$3.24-\$5.81	\$4.45	No Reports Received		
Mountain	25	\$2.52-\$4.72	\$3.12	2	\$3.57-\$3.68	\$3.60
Pacific	38	\$2.52-\$3.57	\$3.38	15	\$3.55-\$3.97	\$3.72

THE BASES OF PRODUCERS' MILK PRICES
(Continued from last month's report)

A brief description of seven bases of prices paid to producers by milk dealers, was presented on page six of last month's report. The first four bases established the price that producers are to receive in advance of delivery, while under the last three bases, the exact price to be paid producers is dependent upon the wholesale market price of either milk, cheese or butter.

Basing Prices on Estimates of Production Costs.

A study of the first three columns of table 1 of this report, together with the footnotes following, shows that in the majority of cases, milk prices are based not on any current market quotations for either milk or manufactured milk products. Under the United States Food Administration certain "cost production formulas" (such as the "Pearson" and "Warren" formulas) were used in some of the larger markets to facilitate agreements between producers and dealers. Milk dealers commonly opposed the employment of such formulas for determining prices to be paid producers from month to month. At present producers' estimates of their production costs frequently are modified by the estimates of cost accounting experts, and the prices finally agreed upon reflect a composite of such estimates adjusted in accordance with probable consumers' demands in relation to the available supply so as to allow a reasonable margin of profit to milk dealers.

Differentials or Premiums Over Butter Quotations

Where prices of wholemilk are based on a wholesale butter market quotation, the premiums that are commonly allowed for butterfat, generally range from 4 to 8 cents per pound of butterfat over the quotation that has been selected. Such premiums are usually necessary on account of competition from creameries, ice cream factories, and condenseries which often pay premiums over market quotations. In creameries these premiums are made possible by reason of the fact that in the manufacture of butter an "over-run" is obtainable ranging from approximately 18 to 25%. The allowance for the non-fat content of wholemilk is commonly based on the farmer's estimate of the feeding value of a hundredweight of skimmilk on the farm but in some markets it is based on the value of skimmilk for use in the production of such products as cottage cheese, condensed skimmilk and casein. The feeding value on the farm of a hundredweight of skimmed milk is commonly considered to be equal to a half bushel of corn or 30 pounds of other grains. With the comparatively high prices of all feed stuffs, the allowances per hundredweight of skimmilk have ranged from approximately \$.70 to \$1.15 during the year 1919. The exact amounts allowed for skimmilk in different markets vary with the seasons of the year regardless of whether they are based on the current farm prices for corn or grains or on the market prices of manufactured skimmilk products.

Straight Butterfat Basis of Prices

In some markets no separate allowance is made for the value of skimmilk but the amount of the premium paid for the butterfat is large enough to cover both the value of skimmilk and the extra costs of producing and delivering regularly the quality required in market milk. Such prices are often referred to as "straight butterfat basis" as the prices of different lots of milk are exactly proportionate to their respective butterfat tests: i.e. 3% milk brings a price equal to three-fourths of the price paid for 4% milk. In most cases where whole milk is bought by dealers on a so-called "straight butterfat basis", the price paid per pound of butterfat is agreed upon in advance of the delivery of milk by producers. In practice prices are generally quoted "per point butterfat": the term "point" signifying 1/10% of 1% butterfat. In such cases the agreement between milk producers and dealers with regard to the prices that are to be paid "per point" butterfat, may have been reached partly as a result of some considerations of both recent and prospective prices of butter or prices paid for cream by manufacturers of butter, but such milk prices are not contingent upon the current month's wholesale butter market quotations.

Advantages and Disadvantages of Butter and Cheese Quotations as Bases of Milk Prices.

In some markets where milk dealers are confronted with the problem of disposing of large seasonal surpluses of milk, dealers frequently prefer to have the monthly milk prices based on either wholesale cheese or butter market quotations. While there are obvious advantages in such bases of milk prices (the chief one being the facilitating of price agreements), there are also some fundamental objections to such bases of milk prices. Such price arrangements are not generally conducive to improvement of a city's milk supply. Unless sufficient premiums or differentials over butter and cheese prices are allowed, such bases of milk prices do not generally afford sufficient inducements for farmers to specialize in large scale production of high quality milk. Farmers ordinarily will not venture investments in large dairy herds, silos, modern sanitary dairy barns, milking machines, dairy houses, and all the necessary equipment for the production of the best grade of milk, unless they feel reasonably assured of returns that will net a fair labor income to themselves and members of their families engaged in the production of milk plus reasonable returns on capital invested. In general, milk producers have felt that a marketing arrangement whereby, the prices that they are to receive are contingent on some future market quotation for cheese or butter, does not afford ample assurance that the price of milk will enable them to realize equitable returns. Where sufficient differentials have been allowed for the value of whey or skimmilk and for extra costs of producing milk of high quality, cheese and butter market quotations have proven satisfactory bases for establishing market milk prices.

GEORGE LIVINGSTON
Acting Chief of Bureau.

November 21, 1919.

THE FLUID MILK MARKET REVIEW FOR THE UNITED STATES.

(Copies of the monthly reports on fluid milk prices in the United States will be sent regularly, free of charge to all persons requesting this service. Requests for these reports should be addressed to the Chief of the Bureau of Markets, U. S. Department of Agriculture, Washington, D. C.)

NOVEMBER COST AND SELLING PRICES OF "STANDARD GRADE MILK".

The following table presents the prevailing prices of "standard grade milk" paid by different classes of buyers in various markets of the United States. The table shows first, the cost price of milk to the leading city dealers who purchase their supply in bulk and prepare it for both wholesale and retail distribution; second, the dealers' prevailing wholesale and retail selling prices; third, retail selling prices of bulk and bottled milk at either municipal milk depots or dealers' retailing stations; and fourth, the selling prices of bottled milk at regular retail grocery stores. The term "standard grade milk" is used to refer to that grade of milk which is most generally sold within the particular city for which prices are quoted. This grade of milk may be either raw or pasteurized but in case of most of the larger cities it is pasteurized milk.

Unless otherwise qualified the prices given in the first column in the following table show the cost of milk delivered to dealers at either city railroad terminals or at the dealers' distributing plant where deliveries are made direct by producers. When the price paid by dealers to producers applies to deliveries at country receiving stations and does not include payment for transportation to the city, the average transportation cost of some dealers has been added to the country station price in order that the cost to the dealer (not including country station expenses) may be shown.

The "dealer's spread" or the difference between cost and selling prices for both wholesale and retail transactions, can be ascertained if the butterfat test of milk as delivered to different classes of trade is known. In order to determine the actual cost price of the grade of milk sold in any city, it is necessary to make allowance of the amount given opposite each city in the third column of the table, for each point of butterfat that the milk actually tests above or below 3.5% (the standard arbitrarily assumed as a basis for the comparison of prices given in the first column of the following table). To reduce prices per hundred weight to either a gallon or a quart basis divide by 11.63 or 46.53 respectively.

See footnotes for exceptions to given prices or special contractual provisions relating to the prices to be paid producers in different markets.

TABLE 1. Cost Prices to Dealers and Selling Prices on Routes and at Retail Stations

MARKETS FOR WHICH PRICES ARE GIVEN	Dealers' Cost Price for Bulk Milk and Butterfat Allowances			Dealers' Route Prices To Wholesale Trade			Retail Prices at Milk Plants		Retail Grocers' Prices	
	Per Hundredweight of 3.5% Raw Milk Delivered at City	Butterfat Test Required for Basic Prices**	Price or Allowance per 1/10% Butterfat in a Cwt.**	Per Gallon (in lots of 5 to 20 Gallons) of Bulk Milk	Per Quart (in Cases of 12) of Bottled Milk	Per Single Quart of Bottled Milk	Per Quart Measure of Bulk Milk	Per Single Quart of Bottled Milk	At Cash and Carry Stores (per Qt. Bottled)	At Credit & Delivery Stores (per Qt. Bottled)
Alabama:			Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Birmingham	a	-	-	40-60	-	18-25	-	-	-	-
Mobile	a	-	-	50-60	18-20	24-25	-	-	-	-
Arizona:										
Phoenix	-	-	-	45	12.5	14-15	-	-	-	-
Arkansas:										
Little Rock	3.50	Str. B. F.	10.0	55	17	20	-	20	-	-
California:										
San Francisco	3.57d	3.6	3.0	41.6	13	15	-	-	-	-
Los Angeles	3.59	Str. B. F.	10-25	55	15	16	-	-	16	-
San Diego	4.30d	4.0	g	48 6	13.6	16	-	-	16	16
Colorado:										
Colo. Springs	3.66-3.70	3.0	3.5	37.5	12	13	10	12	15	15
Denver	3.15	Str. B. F.	9.0	35-40	11-12	12-13	-	-	12-13	13
Pueblo	3.96	3.5	12.0	45	12	15	-	-	-	-
Connecticut:	4.16-4.88	4.0	4.0							
Hartford	3.99f	3.0	4.0	48-50	14-15	16-17	-	17	17	17
	(4.39	4.0	4.0							
Bridgeport	3.89f	3.0	4.0	50	15	17	-	-	-	-
	(4.80	Flat	Price							
New Haven	4.19f	3.0	4.0	48	14-14.5	16	-	-	16	-
Delaware:										
Wilmington	3.94	4.0	4.0	-	-	14	-	-	-	-
Dist. of Col:										
Washington	4.45-5.12	3.5	4.6	36-40	16	18	-	-	17	18

	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Florida:	5.45	4.2	5.0						
Jacksonville	3.85f	4.2	5.0	50-58	17	20	-	18	18
Miami	a	-	-	70	20	25	-	-	-
Tampa	6.87	Flat	Price	60	18	20-25	-	-	-
Georgia:									
Atlanta	5.815	Flat	Price	65-70	17.5	25	-	-	-
Augusta	3.78	Str.B.F	10.8	-	13	18	-	-	-
Savannah	-	-	-	65-75	20	22-25	-	25	25
Illinois:	4.10	3.5	4.0						
Chicago	3.30f	3.5	4.0	48	14-15	15	1	15	15
Peoria	4.20	3.5	3.8	44	-	14	-	-	-
Rockford	No report received								
Indiana:	3.35	h	9.0						
Indianapolis	2.72f+	h	7.5	42	12-14.5	14	-	14	14
	22¢ Fnt.								
Fort Wayne	No report received								
South Bend	3.60	Flat	Price	40	11	13	-	13	13
Evansville	3.41b	h	-	42	13	14	-	14	14
Iowa:									
Des Moines	3.65	3.5	5.0	40-42	13	15	-	14	15
	4.10	4.0	6.0						
Sioux City	3.64	4.0	6.0	50	14.5	16	-	16	16
Dubuque	3.61	3.6	4.0off	44	13	14	-	14	14
Clinton	3.71	Flat	Price	40	11	12.5	-	-	-
Kansas:	3.82	4.0	2.9						
Kansas City	3.34f	4.0	2.9	50	13	15	-	-	-
Topeka	3.60	Flat	Price	45	13	15	-	-	-
Wichita	3.65	3.5	3.0	45	12	15	-	-	-
Kentucky:									
Louisville	3.55-3.90	4.0	3.5	45	13	15	-	-	-
Lexington	3.25-3.40	Flat	Price	60	13-16	13-20	-	-	-
Louisiana:									
New Orleans	5.11	4.0	4.65	55	17	19	1	19	19
Alexandria	5.82	Flat	Price	60	-	20	-	-	-
Maine:									
Auburn	Undetermined	h	6.0	46	13	15	-	-	14.5
Portland	Undetermined	h	-	46	13	15	-	-	-
Maryland:	4.36	4.0	5.8						
Baltimore	4.06f	4.0	5.8	58-60	16	16	-	16	16
Cumberland	3.95	Flat	Price	54	14	16	-	-	-
Massachusetts:									
Boston	4.65c	3.5	4.0	54-59	15	17	1	16	16-17
Springfield	4.65	Flat	Price	56	15	17	-	-	12-16
Worcester	Undetermined	h	6.0	52.5	14.5	16	-	-	15
Michigan:									
Detroit	4.05	3.5	4.0	52	15	16	-	16	16
Grand Rapids	3.48	3.5	4.0	42	12	14	1	14	14
Kalamazoo	4.00	Flat	Price	43	13	15	-	15	15
Minnesota:									
Minneapolis	3.43 de	3.5	5.0	42	11.5	13	-	-	13
St. Paul	3.43 de	3.5	5.0	44	12	13	-	11	-
Duluth	4.00	3.5	5.0	46	14	15-16	-	16	-
Missouri:	3.64-3.86	4.0	4.07						
Kansas City	3.15f+	Str.B.F	9.0	40-45	12-14	16	-	16	16
	25¢ Fnt.								14-16
St. Joseph	3.50	Str.B.F	10.0	48	14	17	-	-	17
	4.30	3.5	3.0	50	15	16	-	16	-
St. Louis	3.94f	3.5	3.0						
Montana:									
Butte	3.49-3.72	Flat	Price	45	12.5	15	-	15	15
Nebraska:									
Lincoln	3.57	Str.B.F	9.625	48	13.5	14.5-15	13	13	15
Omaha	4.07	Flat	Price	-	-	-	-	-	-
New Hampshire:									
Concord	-	-	-	-	12	14	-	-	-
New Jersey:									
Newark	3.975	3.0	4.0	44-48	-	16	-	-	-
	3.94	4.0	4.0						
Trenton	3.70f	4.0	4.0	48	14	14	12	14	16
Atlantic City	-	-	-	-	-	17	-	-	17
Garden	4.19	Flat	Price	-	14	-	-	-	-
New York:	3.79	3.0	4.0						
Buffalo	3.63f	3.0	4.0	38	13.5	15	-	-	15
New York	3.975	3.0	4.0	49	17.5	17.5-18	13	17.5	-
Albany	3.62	Flat	Price	38-40	14-15	15-16	14	15	14-16
Rochester	3.61	3.6	4.0	-	13	14	-	-	-
Binghamton	4.185	Flat	Price	50	13	14	12	14	14
Syracuse	3.64	3.0	4.0	44	13	15	-	-	15
North Dakota:									
Fargo	4.07	Flat	Price	45	13	15-16	-	-	15-17
Jamestown	3.25	Flat	Price	40	-	12.5	-	-	-

	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
North Carolina										
High Point	4.375	Str.B.F	12.5	65	-	20	-	-	-	-
Ashville	4.80	4.0	4.0	55	15	18	-	18	18	19-20
Oklahoma:			9.5							
Oklahoma City	3.22-3.50	Str.B.F	10.0	40-45	13	16	-	15	15	17
Tulsa	4.20	3.5	10.0	55	16	20	-	20	20	
Ohio:	4.244	3.5	5.8							
Cleveland	3.90f	3.5	5.0	49	14.5	16	-	16	16	16
	3.95	3.5	3.5							
Cincinnati	3.80f	4.0	4.5	48-52	14	15	-	15	15	15
Toledo	3.70-3.80	Flat	Price	44	13-13.5	15	11	15	15	15
	4.00	4.0	5.0							
Columbus	- f	h	-	43	13	15	-	-	15	15
Dayton	No report received									
Oregon:										
Eugene	3.55	Flat	Price	40	12	15	15	15	15	15
Salem	4.187	Flat	Price	40	-	15	-	15	15	-
Portland	3.75d	3.8	5.0	40-50	13.5	15-16j	-	17	17	-
Pennsylvania:	4.54	3.5	5.0							
Pittsburg	4.11f	3.5	5.0	48-56	15.5	16	-	-	-	-
	3.94	4.0	4.0							
Philadelphia	3.71f	3.0	4.0	44-48	13	14	-	14	-	14
Harrisburg	No report received									
Scranton	3.75-3.87	3.0	4.0	44	14	15	-	-	15	15
Rhode Island:										
Providence	4.65	3.5	4.0	54	15	17	-	-	-	-
Newport	4.47c	Flat	Price	52	13	15	1	15	15	15
South Carolina:										
Charleston	a	-	-	80	20	25	-	25	25	-
South Dakota:										
Sioux Falls	4.00	Flat	Price	45	14	14	-	-	-	-
Tennessee:										
Memphis	4.65	Flat	Price	50	18	18	-	18	18	-
Nashville	3.25	Str.B.F	9.28	50	16	17	-	-	-	-
Chattanooga	4.36	4.0	5.8	-	17	21	-	-	-	-
Texas:										
Fort Worth	4.55	Str.B.F	13.0	65	-	20	-	-	-	-
Galveston	5.23-5.70	Flat	Price	60	15-16.2	20	-	20	20	20
El Paso	4.40	4.0	4.0	50-55	13.5-16	18-21	-	17	17-18	18-20
San Antonio	3.70	Str.B.F	10.58	50	17	19	-	19	19	19
Utah:										
Salt Lake City	3.37	Flat	Price	35-40	11	13	12	12	13	-
Vermont:										
Burlington	4.25	Flat	Price	-	13	15	15	15	-	15
Virginia:										
Richmond	5.12	Flat	Price	56	16	16	17	17	17	-
Roanoke	4.65-4.80	Flat	Price	52	14	17	-	-	-	-
Washington:				43.3-						
Seattle	3.46-3.57	3.5	5.0	45	11.5-12	14-15	-	-	-	-
Spokane Undetermined		3.6	5.0	45	13	15	-	-	-	-
West Virginia:										
Wheeling	4.00	Flat	Price	48	14	16	-	16	16	16
Clarksburg	4.87	Flat	Price	50	16	17	-	18	18	-
Wisconsin:										
Milwaukee	4.04-4.10	Flat	Price	42	12	13-15	-	-	13	-
Beloit	3.60	3.5	4.0	40	12	12	-	-	-	-
Green Bay	3.45	3.5	4.0	42	11.5	13	11	13	13	-
La Crosse	3.49	Flat	Price	28-40	11	12	9	-	14	14

Explanatory Notes Regarding Prices Quoted in Table 1.

**** In markets where the price of whole milk is determined entirely on the basis of its butterfat content the price per 1/10 pound of butterfat is given in the third column of this table unless this price has not been agreed upon in advance or is contingent upon current month's butter prices of some market. In such cases the price to be paid per hundredweight of milk of any test, (within the minimum limit prescribed by law and the maximum limit, if any, agreed to between dealers and producers), is determined simply by multiplying the agreed price per pound of butterfat given in the third column of this table, by a number corresponding to the actual weight of butterfat contained in the milk, as determined by the Babcock test. The majority of fluid milk dealers of this country, however, do not buy whole milk on such a "straight butterfat basis". It is a more general practice to pay on the basis of a certain price per hundredweight of milk containing a definitely stipulated percentage of butterfat, such as are given for the various markets in the second column of this table. If the average test of the milk delivered by any producer is either higher or lower than the stipulated percentage, the allowance "per point of butterfat" agreed upon between producers and dealers is added or subtracted, as the case may be, for each 1/10 % variation from the test required for the basic whole milk price. In the third column of this table there is given either the price per 1/10 pound of butterfat per hundredweight of milk bought on a "straight butterfat basis" or the allowance for a variation of 1/10 % from the stipulated percentage of butterfat required for the basic whole milk price.

In the second column of the table there is given the stipulated butterfat test required for the basic price for wholemilk except for markets in which a flat price is paid for all natural unadulterated milk regardless of butterfat test or for markets in which milk prices are dependent upon a "straight butterfat basis".

a Practically all or the greater portion of the market milk supply of this city is reported to be furnished by the local producers who distribute their own supply and therefore there is no well established basic wholesale price quotation of the market.

b The price given for this market in the first column of the table is applicable only to such a portion of each individual producer's supply as comes within the limit of variation in production that is permitted by the terms of his contract with the dealer. In some cases the producer is allowed to stipulate the basic quantity that he intends to deliver each month, and in such cases he is allowed a variation of from 10 to 20 %. In other cases the average quantity delivered during certain specified low production months is taken as a basis for determining the exact quantity to which the given price applies; and the average production of the months of November, September and January commonly serve as the basis for such computations. The prices that are to apply to milk delivered in excess or below the stipulated quantities are usually agreed to in advance of delivery and they range from $2/3$ to $3/4$ of the basic prices given in the first column of the table. In some markets where milk is purchased on a straight butterfat basis the deduction from the price per $1/10$ % of butterfat in a hundredweight of milk indicated in the third column of this table, amounts to as much as $8/10$ of a cent.

c In this market the given price applies by agreement to such a percentage of the total supply delivered by all the regular patrons of the dealers as will be sold by the dealers in the form of wholemilk. The "surplus price" will apply to all milk converted into cream, skim milk and the various other products actually manufactured by the dealers from their surplus supply of milk. The price to be paid for this surplus milk is to be determined at the end of the month on the basis of the average market value to the dealers of the supply not sold as fluid milk.

d In this market a producer's marketing agency, or association, arranges for the disposition of all surplus milk at whatever prices it is able to obtain, either by selling it to concerns which buy the milk for purposes of converting it into manufactured dairy products or by manufacturing the surplus in factories operated by the association or agency itself.

e In this market the price of milk is to be based on some accepted wholesale market quotations for American cheese. In the St. Paul and Minneapolis market the price to be paid by milk dealers is obtained by multiplying the average of the Plymouth, Wisconsin quotations for cheese (style, "Twins") for the preceding month (28.25 ¢) by 10 (an assumed average yield of cheese per cwt. of milk), and adding a differential of 60 cents per cwt. of milk to cover the value of whey and extra cost of production and transportation between producers and dealers.

f Two distinct "cost prices" are reported for this market. The first price or the upper figure applies to that portion of the city's supply which is obtained from producers making direct shipments to the city; and the second price, or the lower figure applies to that portion of the supply which is received through dealers' country milk stations. It is important to note that, in markets where the same price is to be paid at all country stations regardless of distance from city, the lower figure given in the first column of this table does not represent the city cost (exclusive of country station operating expenses) for the entire supply obtained through country stations; because transportation costs vary according to the distances at which different stations are located from the city. The prices that are to be paid producers for the month of November for 3.5 % milk delivered at dealers' country receiving stations are as follows: Chicago \$3.60, St. Louis, \$3.70; Cleveland, \$3.65; Buffalo, \$3.40; Pittsburgh, \$3.75; Kansas City, Mo., \$3.15; Indianapolis, \$2.72.

g In the San Diego market where there is a 4% butterfat standard, the price of milk having a lower fat content is determined by multiplying the fat test by 25 and subtracting the result from 100, which gives the weight of skim milk to be deducted in order to raise the fat test to standard. An allowance of 80 ¢ per cwt. is made for this excess skim milk and the butterfat is paid for at the rate of \$1.20 per pound. For example the price of 3.5 % milk would be $100 - (3.5 \times 25) \times .008 + (\$1.20 \times 3.5)$ or \$4.30. A special allowance is made for butterfat in excess of 4%.

h In this market the price to be paid to each producer is determined by multiplying the price allowed per pound of butterfat by the average number of pounds of butterfat contained in the milk delivered and adding an extra allowance for the non-fat content of whole milk. In those markets where the allowance per pound butterfat is agreed upon in advance, the amount of such an allowance per $1/10$ pound butterfat is given in the third column of the table. In case the butterfat allowance is contingent upon some accepted butter market quotations for the current month, the amount of the allowance is not shown.

i Bulk milk is not permitted to be sold to this class of trade.

j In this market some dealers make a reduced price of one cent on each quart of milk and one-half cent on each pint of milk when payment is paid at office on or before the 15th of the month in which delivery is made.

PRODUCERS' PRICES FOR OCTOBER AND NOVEMBER COMPARED.

The average price of grade B milk for all sections as compiled from Table 111 of this report is 9 cents per cwt. or approximately $1/5$ cent per quart higher than the October price. The increase or decrease in the average price for the various sections is as follows: New England, 2¢ cents increase; Middle Atlantic, 1¢ cents increase; East North Central, 1 cent increase; West North Central, 11 cents increase; South Atlantic, 6 cents decrease; East South Central, 39 cents increase; West South Central, 10 cents decrease; Mountain, 2 cents increase; Pacific, 1 cent increase.

DEALERS' NOVEMBER PRICES FOR SPECIAL GRADES OF MILK AND CERTAIN MILK PRODUCTS.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other dairy products delivered at wholesale buyers' places of business or at the homes of retail consumers in twenty-six leading cities. Wholesale prices are reported on the basis of bulk goods sold to and delivered at establishments of large scale consumers or users. Quotations for wholesale milk and light cream have been reduced to a gallon basis. For heavy cream, the wholesale price is quoted per pound of butterfat. For prices of "standard milk", see Table 1 of this Review.

TABLE 11-- Dealers' Wholesale and Retail Selling Price for goods Delivered.

CITIES	Special		Certified		Common		Special				Light			
	or Grade A		Milk		Butter		Butter		Cottage		Cream		Heavy	
	Milk		Milk		Milk		Milk		Cheese		18-20%		Cream	
	Whole	Re-	Whole	Re-	Whole	Re-	Whole	Re-	Whole	Re-	Whole	Re-	Whole	Re-
	sale	tail	sale	tail	sale	tail	sale	tail	sale	tail	sale	tail	sale	tail
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	\$	Cts.	\$	per
	per	per	per	per	per	per	per	per	per	per	per	per	per	Lb.
	Gal.	Qt.	Qt.	Gal.	Qt.	Gal.	Qt.	Lb.	Lb.	Gallon	1/2 Pt.	B. F.		
Boston	-	19	23-25	50	9-11	-	20	-	30	1.30-1.475	15	.89	-	-
Springfield	-	-	22	-	8	-	-	-	-	1.40	-	-	-	-
New York	52	20	25-28	56	11-12	-	-	-	12	1.84	20	1.04	-	-
Buffalo	-	15	25	24	10	-	-	-	20	1.55	20	-	-	-
Philadelphia	-	16	26-28	24-28	10	48	13	7	10	1.44-1.60	16-18	.86	-	-
Pittsburg	-	-	-	35-40	12	-	-	-	11	-	1.60-2.10	19	1.20	-
Cleveland	-	20	30	25	12	-	15	11	15	1.90	20	1.18	-	-
Chicago	-	22	25	40	10	-	18	-	19.2	1.75-1.90	16	1.03	-	-
Milwaukee	-	15-18	25	20-26	8	-	-	-	8-10	12-18.6	1.60	15	.91	-
Detroit	-	22	25	28	11	-	-	-	16	20	-	16	-	-
Minneapolis	-	-	20	12-20	6	-	12	-	-	1.75	15	1.01	-	-
St. Louis	-	18	22	25	11	-	12-15	-	12-15	1.68	17	1.26	-	-
Des Moines	-	-	-	20	10	-	-	-	10	20	1.50-2.00	15	1.03	-
Washington	58-60	19	30	48-60	18	48	14-20	-	15	1.95-2.40	17-20	1.21-1.1	-	-
Richmond	68	17	-	32	9	-	16	-	-	1.70	16	-	-	-
Jacksonville	-	25	-	27	12	-	-	-	-	1.90	20	.90	-	-
Baltimore	-	20	-	60	16	58	16	-	-	1.90	20	1.13	-	-
Louisville	-	-	-	25	8	-	15	-	-	1.60-1.80	15	1.20	-	-
Memphis	-	-	25	-	10	-	20	-	20	1.45	18	-	-	-
New Orleans	60	21	-	-	-	50	17	-	-	1.80	16	.95	-	-
San Antonio	-	-	-	40	12	-	-	18	24	2.25	20	1.30	-	-
Colo. Springs	45	15-16	6	-	15	7	-	-	12	15	1.60	13	1.00	-
Salt Lake City	-	15	-	15.5	7.5	25	-	-	20	1.50	15	.90	-	-
Portland	50	16	21	20	7	20-22	16	7-12	5	15	1.80	17-18	1.20-1.4	-
Seattle	-	-	22	15	5	25	10	-	-	1.75-1.80	15-16	1.05	-	-
San Francisco	-	-	23	20	7-10	-	15	-	15	1.80	15-18	1.89	-	-

PRODUCERS' NOVEMBER PRICES FOR STANDARD AND SPECIAL GRADE MILK.

The following table presents a comparison of the prices per hundredweight of both common and special grades of raw milk which have been offered or agreed to for the present month by dealers or concerns whose chief business is the market distribution of fluid milk. These prices are to be paid producers who make deliveries in their own cans either at local milk plants or at country shipping stations. They are based on the prices given for each market listed in Table 1, of this issue of the Review and a few additional markets not included in that table. The much larger number of "local markets" given in the following table is to be explained by the fact that in Table 1, the cost prices to dealers are given on an f.o.b. city basis, and that these basic prices, reduced by the transportation rates applicable to different distance zones, are the prevailing prices for practically all of the numerous milk stations and railway shipping points from which considerable shipments of milk are regularly made to the cities listed in that table. The "weighted average" prices given in the following table were obtained on the basis of the average net prices applying to the different shipping points supplying each market given in Table 1. The final averages shown in the following table, were obtained by "weighting" the average net producers' price of each distinct market in accordance with the number of local railway shipping points and milk stations supplying each of these cities.

The prices given herewith apply to milk testing 3.5% butterfat, as do also the Producers' prices given in the first column of Table 1.

TABLE 111. Range and Average of Net Prices at Producers' Local Delivery Points.

Geographic Sections	For Standard or Grade B Milk			For Special or Grade A Milk		
	No. of	Range of	Weighted	No. of	Range of	Weighted
	Local	Prices	Average	Local	Prices	Average
	Markets	Applicable	Price	Markets	Applicable	Price
UNITED STATES	672	\$2.55-\$0.52	\$2.77	146	\$2.45-\$6.45	\$2.98
New England	82	\$2.41-\$4.65	\$4.17	3	\$4.04-\$4.06	\$4.06
Middle Atlantic	106	\$2.05-\$4.19	\$3.51	76	\$2.54-\$2.96	\$2.72
E. North Central	198	\$2.75-\$4.08	\$3.03	12	\$3.47-\$6.45	\$4.80
W. North Central	92	\$2.55-\$4.09	\$3.47	13	\$3.57-\$4.66	\$3.87
South Atlantic	65	\$2.40-\$6.52	\$4.43	23	\$2.69-\$6.17	\$4.69
E. South Central	11	\$2.96-\$6.20	\$4.06	0	-	-
W. South Central	32	\$2.03-\$5.43	\$4.35	0	-	-
Mountain	25	\$2.70-\$3.71	\$3.14	2	\$3.57-\$3.68	\$3.60
Pacific	41	\$2.80-\$4.07	\$2.59	15	\$2.45-\$2.98	\$2.63

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF MARKETS
Washington, D. C.

December 20, 1919.

THE FLUID MILK MARKET REPORT FOR THE UNITED STATES.

(Copies of the monthly reports on fluid milk prices in the United States will be sent regularly, free of charge to all persons requesting this service. Requests for these reports should be addressed to the Chief of the Bureau of Markets, U.S. Department of Agriculture, Washington, D. C.)

DECEMBER COST AND SELLING PRICES OF "STANDARD GRADE MILK".

The following table presents the prevailing prices of "standard grade milk" paid by different classes of buyers in various markets of the United States. The table shows first, the cost price of milk to the leading city dealers who purchase their supply in bulk and prepare it for both wholesale and retail distribution; second, the dealers' prevailing wholesale and retail selling prices; third, retail selling prices of bulk and bottled milk at either municipal milk depots or dealers' retailing stations; and fourth, the selling prices of bottled milk at regular retail grocery stores. The term "standard grade milk" is used to refer to that grade of milk which is most generally sold within the particular city for which prices are quoted. This grade of milk may be either raw or pasteurized but in case of most of the larger cities it is pasteurized milk.

Unless otherwise qualified the prices given in the first column in the following table show the cost of milk delivered to dealers at either city railroad terminals or at the dealers' distributing plant where deliveries are made direct by producers. When the price paid by dealers to producers applies to deliveries at country receiving stations and does not include payment for transportation to the city, the average transportation cost of some dealers has been added to the country station price in order that the cost to the dealer (not including country station expenses) may be shown.

The "dealer's spread" or the difference between cost and selling prices for both wholesale and retail transactions, can be ascertained if the butterfat test of milk as delivered to different classes of trade is known. In order to determine the actual cost price of the grade of milk sold in any city, it is necessary to make allowance of the amount given opposite each city in the third column of the table, for each point of butterfat that the milk actually tests above or below 3.5% (the standard arbitrarily assumed as a basis for the comparison of prices given in the first column of the following table). To reduce prices per hundred weight to either a gallon or a quart basis divide by 11.63 or 46.53 respectively.

See footnotes for exceptions to given prices or special contractual provisions relating to the prices to be paid producers in different markets.

TABLE 1. Cost Prices to Dealers and Selling Prices on Routes and at Retail Stations

MARKETS FOR WHICH PRICES ARE GIVEN	Dealers' Cost Price for Bulk Milk and Butterfat Allowances			Dealers' Route Prices To Wholesale Trade		To Family Trade	Prices at Retail (1) Milk Depots	Retail Grocers' Prices		
	Per Hundredweight of 3.5% Raw Milk Delivered at City	Butterfat Test Required for Basic Prices**	Price or allowance per 1/10% Butterfat in a Cwt.**	Per Gallon (in lots of 5 to 20 Gallons) of Bulk Milk	Per Quart (in Cases of 12) of Bottled Milk	Per Single Quart of Bottled Milk	Per Quart Measure of Bulk Milk	Per Single Quart of Bottled Milk	At Cash and Carry Stores (per Qt. Bottled)	At Credit & Delivery Stores (per Qt. Bottled)
Alabama:	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Birmingham	4.65-5.23	3.5	10.0	40-60	--	18-25	--	20	20-25	--
Mobile	a	--	--	50-60	20	23-25	--	--	--	--
Arizona:										
Phoenix	3.96	3.5	12.0	40-45	12-12.5	14-15	--	12-15	15	15
Arkansas:										
Little Rock	No report received this month									
California:	3.57-									
San Francisco	4.04d	3.6	3.0	31.2	13	15	--	--	--	--
Los Angeles	3.76	Str BF	10.75	53.3	15	16	--	--	16	16
San Diego	4.30d	4.0	g	50	13.6	16-18	--	--	16-18	--
Colorado:										
Colo. Springs	3.66-3.70	3.0	3.5	37.5	12	13	10	12-13	13-15	15
Denver	(3.325 2.80f + 29¢ freight	Str EF Str BF	9.5 8.0	35	12	13	12	12	12	12
Pueblo	No report received this month									
Connecticut:	4.68-4.35	4.0	4.0							
Hartford	4.34f	3.0	4.0	50-52	15	17	--	17	17	--
Bridgeport	4.34f	4.0	4.0							
	4.28f	3.0	4.0	50	16	18	--	--	--	--
New Haven	(4.65-4.80 4.19f	Flat 3.0	Price 4.0	48	14	16	--	--	16	--
Delaware:										
Wilmington	3.94	4.0	4.0	--	14	--	--	--	--	--
Dist. of Col:										
Washington	5.12	3.5	4.6	56-60	2.5-16	18	--	18	17	18

	\$	¢	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Florida:	5.45	4.2	5.0							
Jacksonville	(3.85f	4.2	5.0	5-53	17	20	--	13	13	--
Miami	a	--	--	70	20	25	--	--	--	--
Tampa	6.98	Flat	Price	60	15	20-25	--	--	--	--
Georgia:										
Atlanta	6.40	Flat	Price	65	17.5	20-25	--	--	--	--
Augusta	4.20	Str BF	12.0	--	13	18	--	--	--	--
Savannah	--	--	--	--	--	22-25	--	22-25	22-25	22-
Illinois:	(4.15	3.5	4.0							
Chicago	3.95f	3.5	4.0	46-52	14-15	15	--	15	15	15
Peoria	3.65	3.5	5.8	35	11	14	11	11	--	--
See foot note for Peoria concerning Nov. cost price to dealers										
Indiana:	(3.15	Str BF	9.0							
Indianapolis	i	Str BF	i	42-44	12-12.5	14	--	14	14	14
Fort Wayne	4.17	Flat	Price	45	13	15	--	15	--	--
South Bend	3.55	3.5	4.0	40	11	13	--	13	13	13
Evansville	3.81b	h	--	42	13	14	--	14	14	14
Iowa:										
Des Moines	3.65	3.5	5.0	45	13	15	--	14	14	15
Sioux City	4.10	4.0	6.0	50	14.5	16	--	--	--	--
Dubuque	3.61	3.6	4.0 off	44	13	14	--	14	14	--
Kansas:										
Topeka	3.75	Flat	Price	45	13	15	--	--	--	--
Wichita	No report received this month									
Kentucky:										
Louisville	4.00	4.0	3.5	45-46	14	16	--	--	--	--
Lexington	No report received this month									
Louisiana:										
New Orleans	5.11	4.0	4.65	55-60	17	19	--	19	19	19
Alexandria	6.44	Flat	Price	60	--	20	--	--	--	--
Maine:										
Auburn	3.76	h	6.5	46	13	15	--	--	15	15
Portland	No report received this month									
Maryland:	4.36	4.0	5.8							
Baltimore	4.06f	4.0	5.8	58	16	16	16	16	16	16
Cumberland	4.15	4.0	3.0	58	16	17	--	--	--	--
Massachusetts:										
Boston	4.65c	3.5	4.0	56-59	15	17	--	17	17	17
Springfield	4.65	Flat	Price	55	15	17	--	--	--	--
Fall River	--	Flat	Price	48	13	15	--	15	15	15
Worcester	3.76	h	6.5	52.5	14.5	17	--	--	17	17
Michigan:										
Detroit	4.05	3.5	4.0	52	15	16	--	16	16	16
Grand Rapids	3.52	3.5	4.0	42	12	14	--	--	14	14
Kalamazoo	4.00	Flat	Price	48	13	15	--	15	15	15
Minnesota:										
Minneapolis	3.541e	3.5	5.0	42	11.5	13	--	--	13	13
St. Paul	3.541e	3.5	5.0	44	12	13	--	11	--	--
Duluth	4.00	3.5	5.0	46	14	15-16	--	16	16	16
Winona	3.96	Flat	Price	46	13	--	--	--	--	--
Missouri:	(3.50-3.90	4.0	3.5							
Kansas City	3.15f	Str BF	9.0	40-50	13-15	15-16	15	15-16	15-16	15-
St. Joseph	25¢ Fht. 3.50	Str BF	10.0	48	14	17	--	--	17	17
St. Louis	(4.32-4.41 4.06f	3.5	3.0	50	15	16	--	--	--	--
Montana:										
Butte	3.60-3.72	Flat	Price	40-45	12.5	15	--	15	--	--
Nebraska:										
Lincoln	3.762	Str BF	10.75	54	14	16	--	--	--	--
Omaha	3.50-4.07	Flat	Price	36-42.5	14.5	--	--	--	--	--
New Hampshire:										
Concord	--	--	--	12	14	--	--	--	--	--
New Jersey:										
Newark	4.325	3.0	4.0	44-50	14-17.5	17-18	--	--	--	--
Trenton	3.64	4.0	4.0							
Camden	3.70f	4.0	4.0	50	14	14	12	14	16-17	16-
Carden	4.19	Flat	Price	--	14	--	--	--	--	--
New York:										
Buffalo	--	--	--	--	14	16	--	--	--	--
New York	4.325	3.6	4.0	52	17.5-18	18	14	--	18-19	17-
Rochester	4.16	3.6	4.0	46-56	13-14	14.5-15	--	--	17	17
Albany	4.22	Flat	Price	42-44	13	13	15	--	17	17
Syracuse	4.00	3.0	4.0	44	13	15	--	15	15	--
North Carolina:										
Asheville	4.80	4.0	4.0	55	15	18-19	--	18	--	19-
North Dakota:										
Fargo	4.70	Flat	Price	45	14	17	--	17.5	--	--
Jamestown	4.75	Flat	Price	44	--	12.5	--	11.5	--	--

	\$	%	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Oklahoma:			9.5-							
Oklahoma City	3.33-3.76	Str BF	13.75	50	14	17	--	16-18	--	18-20
Tulsa	4.12	3.5	10.0	55	16	20	--	20	20	20
Ohio:										
Cleveland	4.42	3.5	5.8	48	14.5	16	--	16	16	16
Cincinnati	(4.45 4.29f	3.5- 4.0	3.5 off 4.5 on	48- 52	14-15	15	--	15	15	15
Toledo	3.85	Flat	Price	44-46	13-13.5	15	--	15	15	15
	(4.20	4.0	6.0							
Columbus	-f	h	--	43	13	14.28	--	--	14.2	14.2
Dayton	3.75	4.0	5.0	45	14	16	--	16	16	16
Oregon:										
Eugene	3.55	Flat	Price	45	13	15	15	15	15	15
Salem	No report received this month									
Portland	3.75d	3.8	5.0	50	13.5	15-16J	--	17	17	17
Pennsylvania:	(4.50-4.77	3.5	5.0							
Pittsburg	4.44f	3.5	5.0	50-56	15-15.5	16-16.5	--	16	--	--
	(3.94	4.0	4.0	44-48	13	14	--	14	14	14
Philadelphia	3.71f	3.0	4.0							
Harrisburg	3.48	4.0	4.0	48	12	13	--	--	13	13
Rhode Island:	See footnote for New port concerning Nov. cost price to dealers.									
Providence	4.65	3.5	4.0	--	--	17	--	--	--	--
Newport	4.70	Flat	Price	52	13	15	--	15	15	15
South Carolina:										
Charleston	a	--	--	80	20	25	--	25	25	--
South Dakota:										
Sioux Falls	4.00	Flat	Price	45	14	14	--	--	16-18	16-18
Tennessee:										
Memphis	4.65	Flat	Price	50	18	18	--	18	18	--
Nashville	3.66	Str BF	10.46	55	16	17	--	--	--	--
Chattanooga	4.35	4.0	5.8	60	16	20	--	--	--	--
Texas:										
Fort Worth	4.55	Str BF	13.0	65	--	20	--	--	--	--
Galveston	5.23-5.70	Flat	Price	60-80	15-16.2	20	--	20	20	20
El Paso	--	--	--	50	--	17	--	--	--	--
San Antonio	3.70	Str BF	10.58	50	17	19	--	19	19	19
Utah:										
Salt Lake City	3.49	Flat	Price	35	11	12.5	--	12-13	13	13-15
Vermont:										
Burlington	4.25	Flat	Price	--	14	16	14	16	--	16
Virginia:										
Richmond	5.12	Flat	Price	56	16	16	20	20	20	--
Roanoke	4.65-4.80	Flat	Price	52-56	14	17	--	--	--	--
Norfolk	5.23	Flat	Price	50-55	18	18J	--	--	--	--
Washington:										
Seattle	3.57-3.74	3.5	5.0	45	11-12	14-15	--	--	--	--
Spokane	3.75	3.6	5.0	47.5	13.5	15.5	--	--	15-16	15-16
West Virginia:										
Wheeling	4.20	Flat	Price	48	14	16	--	16	16	16
Clarksburg	4.87	Flat	Price	50	16	17	--	18	18	--
Wisconsin:										
Milwaukee	3.96-4.00	Flat	Price	42	12	13	--	--	13	13
Beloit	3.65	3.5	4.0	40	12	13	--	--	--	--
Green Bay	3.45	3.6	4.0	42	11.5	13	11-12	13	13	13
La Crosse	3.72	Flat	Price	--	12	14	12	--	--	--

Explanatory Notes Regarding Prices Quoted in Table 1.

(1) The column headed "Prices at Retail Milk Depots" includes the prices at which milk is sold over retail counters located in dealers' milk plants or delivery depots. ***When milk is purchased on a so-called straight butterfat basis, the prices received by different producers are exactly proportionate to the butterfat content of the different lots of milk. In other cases where allowances are made for variations in butterfat tests, the prices per hundredweight of milk do not vary proportionately with the butterfat tests of the different lots, but a definite price per hundredweight is given for milk of a certain stipulated test (shown in second column of this table) and the allowance shown in the third column is added or deducted from the given price for each 1/10% above or below the stipulated basic test.

aPractically all or the greater portion of the market milk supply of this city is reported to be furnished by the local producers who distribute their own supply and therefore there is no well established basic wholesale price quotation of the market.

bThe price given for this market in the first column of the table is applicable only to such a portion of each individual producers supply as comes within the limits of variation in production that is permitted by the terms of his contract with the dealer. In some cases the producer is allowed to stipulate the basic quantity that he intends to deliver each month, and in such cases he is allowed a variation of from 10 to 20%. In other cases the average quantity delivered during certain specified low production months is taken as a basis for determining the exact quantity to which the given price applies; and the average production of the months of November, September and January commonly serve as the basis for such computations. The prices that are to apply to milk delivered in excess or below the stipulated quantities are

usually agreed to in advance of delivery and they range from $2/3$ to $3/4$ of the basic prices given in the first column of the table. In some markets where milk is purchased on straight butterfat basis the deduction from the price per $1/10\%$ of butterfat in a hundredweight of milk indicated in the third column of this table, amounts to as much as $8/10$ of a cent.

cThe surplus price arrangement which has been in effect between the leading milk marketing organizations of Greater Boston, and producers who are members of the New England Milk Producers' Association, does not apply to December prices. Dealers have agreed to pay \$4.65 f.o.b. Boston for all milk supplied by regular shippers.

dIn this market a producer's marketing agency, or association, arranges for the disposition of all surplus milk at whatever prices it is able to obtain, either by selling it to concerns which buy the milk for purposes of converting it into manufactured dairy products or by manufacturing the surplus in factories operated by the association or agency itself.

eIn this market the price of milk is to be based on some accepted wholesale market quotations for American cheese. In the St. Paul and Minneapolis market the price to be paid by milk dealers is obtained by multiplying the average of the Plymouth, Wisconsin quotations for cheese (style, "Twins") for the preceding month (29.87) by 10 (an assumed average yield of cheese per cwt. of milk), and adding a differential of 55 cents per cwt. of milk to cover the value of whey and extra cost of production and transportation between producers and dealers.

fTwo distinct "cost prices" are reported for this market. The first price or the upper figure applies to that portion of the city's supply which is obtained from producers making direct shipments to the city; and the second price, or the lower figure applies to that portion of the supply which is received through dealers' country milk stations. It is important to note that, in markets where the same price is to be paid at all country stations regardless of distance from city, the lower figure given in the first column of this table does not represent the city cost (exclusive of country station operating expenses) for the entire supply obtained through country stations; because transportation costs vary according to the distances at which different stations are located from the city. The prices that are to be paid producers for the month of November for 3.5% milk delivered at dealers' country receiving stations are as follows: Chicago \$3.65; St. Louis, \$3.825; Pittsburgh, \$4.00; Kansas City, Mo., \$3.15; Indianapolis, \$2.82.

gIn the San Diego market where there is a 4% butterfat standard, the price of milk having a lower fat content is determined by multiplying the fat test by 25 and subtracting the result from 100, which gives the weight of skimmilk to be deducted in order to raise the fat test to standard. An allowance of 30¢ per cwt. is made for this excess skimmilk and the butterfat is paid for at the rate of \$1.20 per pound. For example the price of 3.5% milk would be $100 - (3.5 \times 25) \times .008 + (\$1.20 \times 3.5)$ or \$4.30. A special allowance is made for butterfat in excess of 4%.

hIn this market the price to be paid to each producer is determined by multiplying the price allowed per pound of butterfat by the average number of pounds of butterfat contained in the milk delivered and adding an extra allowance for the non-fat content of whole milk. In those markets where the allowance per pound butterfat is agreed upon in advance, the amount of such an allowance per $1/10$ pound butterfat is given in the third column of the table. In case the butterfat allowance is contingent upon some accepted butter market quotations for the current month, the amount of the allowance is not shown.

iPractically all of the milk supply of Indianapolis, delivered at country receiving stations, is purchased on the basis of the current month's Chicago butter market quotations, a premium of 15 cents per pound being given. One large marketing concern has agreed to pay a price of 30 cents per pound butterfat above the current month's butter quotations f.o.b. city for milk shipped direct from farm to city or delivered by producers at city plant.

jIn this market some dealers make a reduced price of one cent on each quart of milk and one-half cent on each pint of milk when payment is paid at office on or before the 15th of the month in which delivery is made.

Correction: According to the report received for the month of December, the November f.o.b. city cost price to dealers for Newport was \$4.70 per cwt. (flat price), instead of \$4.47 as given in the November issue of the Milk Market Report. It appears that the latter price was paid for some milk at country delivery points. No regular shipments are received from country milk stations.

The November cost price to dealers in Peoria was reported to this Bureau as \$4.20 per hundredweight, but December reports show that the price actually paid was \$3.60.

November and December Prices Compared.

Out of a total of 81 cities for which dealers' cost prices f.o.b. city were reported on a comparable basis for November and December, there were increases in the prevailing cost prices of standard grade milk in 37 cities. The average increase in those cities was 26 cents per hundredweight. The highest increase, 65 cents, occurred in the Alexandria, La. market. In 41 cities dealers' cost prices remained substantially unchanged, and there was an average reduction of $12 \frac{1}{2}$ cents per hundredweight in the case of two cities.

Prevailing retail prices on dealers' routes increased one cent per quart in 14 cities. In LaCrosse there was an increase of 2 cents in retail route prices.

DEALERS' DECEMBER PRICES FOR SPECIAL GRADES OF MILK AND CERTAIN MILK PRODUCTS.

The following table shows the wholesale and retail prices reported for "special" and "certified" milk and certain other dairy products delivered at wholesale buyers' places of business or at the homes of retail consumers in twenty-six leading cities. Wholesale prices are reported on the basis of bulk goods sold to and delivered at establishments of large scale consumers or users. Quotations for wholesale milk and light cream have been reduced to a gallon basis. For heavy cream, the wholesale price is quoted per pound of butterfat. For prices of "standard milk", see Table 1 of this Report.

TABLE II-- Dealers' Wholesale and Retail Selling Price for Goods Delivered.

	Special		Certi-		Common		Special		Cottage		Light		Heavy	
	Grade A		ified		Butter-		Butter-		Cheese		Cream		Cream	
	Milk		Milk		Milk		Milk		Milk		18-20%		Cream	
CITIES	Whole-	Re-	Whole-	Re-	Whole-	Re-	Whole-	Re-	Whole-	Re-	Whole-	Re-	Whole-	Re-
	sale	tail	sale	tail	sale	tail	sale	tail	sale	tail	sale	tail	sale	tail
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	\$	Cts.	\$	per
	per	per	per	per	per	per	per	per	per	per	per	per	per	Lb.
	Gal.	Qt.	Gal.	Qt.	Gal.	Qt.	Gal.	Qt.	Lb.	Lb.	Gallon	1/2Pt.	B.F.	
Boston	--	19	25	30	9-11	--	20	--	30	--	--	--	--	.87-.91
Spring-	--	--	22	--	8	--	--	--	--	--	--	--	--	--
field	--	--	--	--	--	--	--	--	--	--	--	--	--	--
New York	--	20	25-28	35	11-12	--	--	11	12-22	1.92	20	1.13-1.21	--	--
Buffalo	--	--	--	--	10	--	--	--	--	--	20	--	--	--
Phila-	--	16	26-28	24-28	3-10	48	13	7	10	1.44-1.60	16-18	.85	--	--
delphia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pitts-	--	--	22	40	12	--	--	11-12	--	1.80-2.10	19-20	1.07-1.20	--	--
burg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cleve-	--	--	--	25	--	--	--	10	--	1.30	--	1.11	--	--
land	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chicago	--	22	25	40	10	--	18	--	10-2	1.75	--	1.04	--	--
Mil-	--	--	--	--	--	--	--	--	--	--	--	--	--	--
waukee	--	15-18	25	20-26	8	--	--	8-10	12-18	1.60	15	.90	--	--
Detroit	--	20-22	23	24	10-11	--	22	9	16-23	1.30	16	1.08	--	--
Minne-	--	--	--	--	--	--	--	--	--	--	--	--	--	--
apolis	--	--	20	15	6	--	12	--	--	1.75	15	1.01	--	--
St Louis	--	13	22	--	--	--	--	--	15-16	1.63	17	1.26	--	--
Des	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Moines	--	17	--	28	10	--	16	11	20	1.75	15	1.08	--	--
Washing-	53-64	18	30	48	15-18	48	18	12.5	15	2.00	17-20	1.21-1.35	--	--
ton	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Richmond	--	17	--	34	9-10	--	16	--	--	1.70	16	--	--	--
Jackson-	--	25	--	27	12	--	--	--	--	1.90	20	.90	--	--
ville	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Baltimore	--	20	--	58	16	58	16	--	--	1.80-1.90	--	.90-1.20	--	--
Louis-	--	--	--	24	9	--	15	--	--	1.60-1.80	16	1.20	--	--
ville	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Memphis	--	--	25	--	10	--	20	--	20	1.45	18	--	--	--
New	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Orleans	65	21	30	44	15	50	17	--	--	1.30-1.35	16	.96-1.05	--	--
San	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antonio	--	--	--	40	12	--	--	15	20	2.25	20	1.30	--	--
Colo.	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Spring	45	15-16	6	15	7	--	--	12	15	1.60	13	1.00-1.00	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--	--
City	--	15	--	15	--	25	--	10	15	1.65-1.75	15	.90-1.00	--	--
Portland	--	--	21	20	7	50	15	7	--	1.80	17	1.20	--	--
Seattle	--	--	22	15-23	5-9	25	10	--	--	1.70-1.80	15-16	1.05	--	--
San Fran-	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cisco	--	--	23	25	--	--	--	15	--	--	--	1.03	--	--

PRODUCERS' DECEMBER PRICES FOR STANDARD AND SPECIAL GRADE MILK.

The following table presents a comparison of the prices per hundredweight of both common and special grades of raw milk which have been offered or agreed to for the present month by dealers or concerns whose chief business is the market distribution of fluid milk. These prices are to be paid producers who make deliveries in their own cans either at local milk plants or at country shipping stations. They are based on the prices given for each market listed in Table 1, of this issue of the Report and a few additional markets not included in that table. The much larger number of "local markets" given in the following table is to be explained by the fact that in Table 1, the cost prices to dealers are given on an f.o.b. city basis, and that these basic prices, reduced by the transportation rates applicable to different distance zones, are the prevailing prices for practically all of the numerous milk stations and railway shipping points from which considerable shipments of milk are regularly made to the cities listed in that table. The "weighted average" prices given in the following table were obtained on the basis of the average net prices applying to the different shipping points supplying each market given in Table 1. The final averages shown in the following table, were obtained by "weighing" the average net producers' price of each distinct market in accordance with the number of local railway shipping points and milk stations supplying each of those cities. The prices given herewith apply to milk testing 3.5% butterfat, as do also the Producers' prices given in the first column of Table 1.

TABLE III. Range and Average of Net Prices at Producers' Local Delivery Points.

Geographic Sections	For Standard or Grade B Milk			For Special or Grade A Milk		
	No. of	Range of	Weighted	No. of	Range of	Weighted
	Local	Prices	Average	Local	Prices	Average
	Markets:	Applicable	Price	Markets:	Applicable	Price
UNITED STATES	627	\$2.79-\$6.54	\$3.77	133	\$3.50-\$6.45	\$4.05
New England	31	\$3.56-\$4.65	\$4.18	5	\$4.20-\$4.30	\$4.25
Middle Atlantic	94	\$3.13-\$4.19	\$3.73	76	\$3.59-\$4.30	\$3.90
E. North Central	187	\$2.82-\$4.54	\$3.73	5	\$4.19-\$6.45	\$5.33
W. North Central	88	\$3.06-\$4.30	\$3.48	10	\$3.73-\$4.00	\$3.85
South Atlantic	76	\$3.40-\$6.54	\$3.88	22	\$3.69-\$5.80	\$4.35
E. South Central	11	\$3.37-\$5.06	\$4.06	3	\$4.94-\$5.64	\$5.12
W. South Central	25	\$3.17-\$5.98	\$4.55	--	--	--
Mountain	25	\$2.79-\$3.70	\$3.18	2	\$3.50-\$3.61	\$3.56
Pacific	40	\$2.80-\$4.07	\$3.51	15	\$3.62-\$4.40	\$3.81

MILK PRICES IN RELATION TO "DEALERS' SPREADS"

In practically every city in the United States the public's mental attitude is hostile towards the market milk business. This antagonistic frame of mind is the result largely of the numerous critical and often denunciatory articles that have been published in daily newspapers regarding the general increase in the prices of fluid milk. Producers and dealers have protested that these price increases are an inevitable consequence of the universal increase in the prices of all commodities, and in many markets the trade has paid for full page advertisements setting forth the immediate causes of the current price increases and calling attention to the fact that the rise in prices of milk has been no greater than that of most other commodities.

In many instances milk dealers have been denounced as "profiteers" by persons who did not know what profits had actually been made by those whom they accused of profiteering, but merely based their accusations on comparisons of the margins of gross profit at which milk was supplied to the retail trade in a few selected cities. Unless consideration is given to the fact that differences in local market conditions affecting the cost of assembling, handling and distributing milk, are often the chief causes for the wide variation in the "dealers' spreads" of different markets, there is danger of making unwarranted deductions regarding the probable net profits of milk dealers in different markets.

The following table presents a summary view of the wide range in "dealers' spreads" in different sized cities of the United States.

Table 1.--Prevailing Margins of Gross Profit on Retail Sales of Standard Grade Milk. (Based on the prevailing prices for the last six months of the year 1913)

"Spreads" between F.O.B. City Cost Price & Retail Selling Price	Number of Cities of all sizes in which different percent spreads prevailed.	Number of Cities of Different Sizes in Which Different "Spreads" Prevailed				
		Population under 25,000	Population 25,000 to 100,000	Population 100,000 to 500,000	Population over 500,000	
3.5 - 4 cents per qt.	15	2	7	5	1	
5 - 5.9 cents	24	4	11	8	1	
6 - 6.9 cents	46	7	11	21	7	
7 - 10 cents	17	3	7	7	0	
Total Cities	102	16	36	41	9	

The above table shows that in most cities the margins required by dealers per quart of bottled milk delivered to family trade, averaged from 5 to 7 cents for the last six months of the year 1913, (Comparisons based on the prevailing monthly market prices for the year 1919, show that dealers' margins have increased somewhat since that time). Out of a total of 102 cities the dealers' margins in 15 cities were less than 5 cents per quart, and more than 7 cents in 17 cities.

Unquestionably the net profits realized by the leading milk marketing concerns, on the basis of both capital invested and volume of sales, were larger in the case of some cities than of others; but audits of the accounts of some of the representative milk marketing organizations in different cities show that there is not even a general correlation between net profits and the margins of gross profit on retail sales. Even if per unit costs of plant operation and delivery service were approximately the same, the net profits of any particular business enterprise would be dependent to a large extent upon the proportionate volume of sales at the prevailing market prices to different classes of wholesale and retail trade.

The following table shows the wide variations in the dealers' margins of gross profit on sales to different classes of trade in twelve of the larger cities of the United States:

Table 2.--Dealers' Margins on Sales to Different Classes of Trade. (Based on prevailing prices for nine months beginning July 1918 and ending March 1919, inclusive).

Cities for which margins of gross profits were determined.	Spread between Cost and Selling Prices of Standard Grade Milk		
	Bulk Milk delivered to Restaurants and Hotels	Bottled Milk delivered to Restaurants and Retail Stores	Bottled Milk delivered to Family Trade
New York	:2.95 cents per Qt.	:5.95 cents per Qt.	:6.37 cents per Qt.
Chicago	:2.89	:4.85	:5.64
Philadelphia	:2.65	:3.95	:4.76
Boston	:3.96	:4.65	:6.63
Baltimore	:4.90	:6.15	:6.76
Pittsburgh	:3.46	:5.36	:5.53
Cleveland	:2.37	:3.97	:6.19
Detroit	:3.28	:5.77	:7.02
Milwaukee	:1.74	:3.62	:4.24
Minneapolis	:2.47	:3.52	:4.84
New Orleans	:1.67	:4.42	:6.42
San Francisco	:2.18	:4.57	:6.05
Averages of above cities	:2.876	:4.731	:5.920

For a brief statement of the range of per unit costs of city plant and delivery operations in large American cities see article beginning on page 5 of the August issue of this Bureau's Fluid Milk Market Review.

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